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Soviet Union

Military Affairs

JPRS-UMA-91-031

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Further on DOSAAF Reorganization Plenum

Speeches Summarized

92UM0132A Moscow SOVETSKIY PATRIOT
in Russian No 45, Nov 91 (Signed to press 5 Nov 91)
pp 6-7

[Article by V. Balabin, V. Grevtsev and A. Korzhavin:
"The First Complete Step Has Been Taken"]

[Text] As was communicated earlier, the USSR DOSAAF Central Committee held its seventh plenum. As a supplement to information on the plenum printed in SOVETSKIY PATRIOT No 44, an account of the report "On Reorganization of the Defense Society" by Colonel General N. N. Kotlovtssev, chairman of the USSR DOSAAF Central Committee, the resolutions of the plenum and an account of the debate on the report and on amendments to the Charter are published below.

- Immediate reorganization of DOSAAF—the only chance of surviving our changing times.
- How do we breathe life back into the society's activity?
- To decisively reject dogmas and cliches.
- We need an optimum administrative structure.
- Bearing a bearable burden.
- Republic defense-sports organizations: What should they take on themselves, and what should they delegate to the center?
- Experience has shown that we can organically enter the market system.

The victory of democratic forces in the August events, the speaker said, had a deep influence on the country's defense society. We can assert with satisfaction today that in that dynamic and, frankly speaking, confused situation the committees and organizations of DOSAAF did the right thing: They took the side of the people, and they acted in communication with lawfully elected local authorities. And this is the best argument in favor of the democratic, popular nature of our society, which did not waver in its support to the ideas of perestroika.

Although they were not all that broad, changes did occur after the Fifth Plenum of the USSR DOSAAF Central Committee. The forms of leadership by the center became more democratic. However, the fundamental issue concerning the basic reform of the society's structure remained unaddressed.

There were of course serious reasons for that. But it must be admitted that more could have been done nonetheless. This was confirmed by life, by processes occurring in a number of the republic's defense organizations that left the center behind.

Healthy processes of self-assertion and the rather high authority of republic defense organizations allow us to say that as a whole, the defense society is viable. We can conclude that the tumultuous events in sociopolitical life did not devalue the tasks imposed on the USSR

DOSAAF. It is needed by the country, and for this reason it has a historic opportunity to survive in a time when many state and political structures of the Union are falling by the wayside.

Recently, many poison-tipped arrows have been shot at mass defense and patriotic work. But they were unable to upset either its essence or its necessity. It is another matter that it must be carried on skillfully, on the basis of profound processes rather than slogans, with reliance upon the heroic history of the fatherland rather than upon ideological dogmas and cliches. We need to think deeply about how to raise the effectiveness of patriotic propaganda, about the paths and methods by which to make the people aware of the positive role to be played by a true patriot of the fatherland at this turning point in our state's development, and about how to breathe life back into all of our activity, and to heal it.

There is no doubt as to the importance of the problems of preparing young people for army service, even though certain changes are imminent in this area as well, in connection with the military reform.

Nor have functions of the defense society such as preparing specialists in technical occupations for the national economy, promoting technical creativity and developing technical forms of sports lost their importance either.

At the same time the complexity and instability of the internal political situation, the imperfections of the socioeconomic transformations that have begun in the country, and a number of subjective causes brought into being by the defense society itself created many new problems in the activity of the committees and organizations of DOSAAF.

In the area of preparing specialists for the armed forces, these difficulties are concerned primarily with attracting conscripts to training organizations, and with departure of qualified educators to competing organizations. Financial problems have become extremely acute.

The cost of preparing specialists in DOSAAF organizations recently increased by a factor of 2-4. And education has moved beyond the reach of a significant part of the population. The situation is aggravated by disintegration of the system for centralized supply of training equipment and of material and technical resources. And what is being offered today by the commodity markets is beyond the means of DOSAAF organizations. Under these conditions preserving the viability of the established system for preparing personnel for mass technical occupations is the main task of DOSAAF committees.

Technical sports are being subjected to continuous attacks from different levels. This is being done with one goal in mind—to discredit their leadership by DOSAAF, and to forcibly take technical sports away from the defense society. The number of sports competitions and the number of participants in them have decreased sharply. In 1991 only four republic teams took part in the

USSR championship motocross meet, and radio sports competitions were not held at all. Financing of children's and young adults' sports is worsening, which is doing damage to DOSAAF's authority. Only a few of the 170 DYuSTSh [not further identified] are in a relatively favorable position today.

In a word, the situation in technical sports is such that only decisive organizational measures could halt the development of negative processes. The time has come to critically evaluate our possibilities, and to admit that DOSAAF lacks the means by which to simultaneously cultivate and develop more than two dozen forms of expensive sports. We obviously need to concentrate the efforts and resources of sports organizations on directions of the greatest priority.

Because of the collapse of a unified economy and rupture of economic ties in the country, material, technical, financial and economic problems have grown much more complicated. Investment of assets into capital construction from the centralized fund has decreased.

A grave situation is evolving in our production enterprises. Their profit has dropped significantly. In this situation it would be logical to consider the future destiny of the enterprises. Attempts are being made by local agencies to take them under their wing. What this requires is determining which enterprises would best be given away, and which should be left with the center.

The financial and economic status of the society has reached a point where the possibility for its committees and organizations to carry on their Charter activities has come under doubt. The expenses of maintaining our committees and organizations are increasing faster than the income from their activities. In the first half of this year a third of the kray and oblast committees of just Russia's defense organizations found themselves in the red. The solution to the problem should be sought primarily along the lines of developing traditional sources of income, and mastering new ones.

Special attention must be turned to problems associated with public property—the cornerstone of the foundation of the defense society. It would be an unpardonable mistake to deprive millions of DOSAAF members of the possibility for utilizing it effectively. We are, after all, talking about assets worth a great deal of money. Our society's main funds and its reserves of commodities and material valuables total a little less than 2 billion rubles.

Unfortunately we have been witness to a tendency to disperse public property. A sensible approach needs to be resumed in this area. The center should be left with funds and financial assets which would allow it not only to stand firmly on its feet but also to provide assistance to the republics, and to confidently fulfill the functions that will be delegated to it.

The accelerating processes of democratization and transition to market relations in the country and the situation in the defense society tell us that reorganization of

DOSAAF is an unpostponable matter. Further development of the defense society, and its very existence, will depend on how concrete the programs of such reform will be, and on how well it meets the realities of the times.

The speaker went on to discuss the following elements of such a program:

1. Decisive change in the nature of our organization. It has become obvious that reliance upon its status as a state and public organization has not withstood the test of time. The future of the organization lies along the lines of democracy, self-development and self-initiated public work. And all of our relations, including with the Ministry of Defense, should be built on the basis of these principles. Only on a contract basis. The stronger and more authoritative we are as a public organization, the stronger these ties will be. Its functions must be determined more specifically as well. While maintaining the character of the society as a defense organization, we must lay emphasis on technical sports activities—that is, we must legalize the process now going on in the republics.

2. Preservation of the organization's unity at the scale of the country. Every former union republic is a sovereign state. What will be the terms of their cooperation? Will a union Constitution be adopted, or will the effort be limited to signing an agreement to form a partnership? These questions will be answered in the immediate future. But we can already say right now that the USSR DOSAAF must be transformed from a centralized organization into a union of equal defense and technical sports organizations.

The conditions for such a transformation exist. They include common interest in supporting the country's defense, preparation of specialists for the unified armed forces, joint development of technical sports, unification of efforts to develop the material and equipment base, and its joint use.

However, centrifugal tendencies need to be considered as well. Typical in this aspect is the attempt to create a Russian National Aviation Association estranged from the defense society. Another is the longing of a number of federations for independence.

There is of course a share of objectivity in these tendencies, but we must also realize their destructiveness. As a rule, they are based not on common interests but on a desire of some officials to keep afloat at all costs. This is clearly not in the traditions of the defense society. This is why preservation of the unity of the defense organizations must be a general line of its reorganization.

3. Changing the name of the defense society. The numerous proposals from local organizations and elementary logic suggest that the "Union of Defense and Technical Sports Organizations of the USSR," abbreviated the "USSR SOSTO," might be such a name. Without a doubt the new abbreviation doesn't sound as

nice as the old one, but it does accurately reflect the status and field of activity of the renewed defense society.

4. Reorganizing the supreme elective agencies of the future union. In this case it is important to correct the presently existing slant in the direction of centralism. The status and composition of these agencies and the manner in which they are formed will depend on the functions that we delegate to the union. If they are to be executive and administrative, then in our opinion the union's supreme agency should be a Central Council, as being more democratic than the Central Committee and satisfying the spirit of the times. It would be suitable to elect the chairmen of its central councils and its deputies. In this case we would have to have a charter as well.

But if the union's supreme agencies are to be endowed with purely coordinating functions, then there would obviously be no need for congresses. In this case it would be sufficient to have a Central Council, composed of representatives of the organizations in the union, and rather than a charter, a union agreement.

5. Determining the specific principles of forming central agencies. They may be elected in accordance with a procedure foreseen by the present Charter. Also deserving of attention are proposals that have been voiced by the All-Russian Congress concerning establishment of elective agencies in accordance with the regional-functional principle.

It would obviously be suitable to reorganize the USSR DOSAAF Central Committee into a Central Council at this plenum. As far as the composition of the Central Committee and the inspection committee are concerned, proposals have been made to cancel the membership of those who broke their ties with the defense society or who are unable to fulfill their responsibilities because of health or other reasons.

6. Amending the defense society's Charter. The essence of the changes proposed in the nature, structure and methods of leadership and the name of the society is such that for practical purposes we must consider a new Charter. But because we are required by law to register the society this year, we need that Charter right now. This is why amending the existing Charter at our plenum is proposed.

7. Transition to predominantly economic methods of administration. This is an entire block of problems concerned with reinforcing the material and technical base and the financial status of the society under the conditions of market relations. They are not the kind of problems that can be solved in a single day. We need to make a serious effort to develop new principles of economic mutual relations between the center and the republics, going as far as signing an economic agreement. The foundation of this effort could be laid right here at this plenum.

8. In reforming the society, we must opt for radical reduction of the administrative staff centrally and locally. The time has come to decisively free ourselves of ineffectively operating structures, and of all that drags us down and costs us dearly. The model that should be followed by committees and organizations at all levels would be to create a staff which would be highly professional, of minimum size, and responsive to the needs of the organizations for which it works.

9. Restructuring work with personnel. In our work with them, we need to base ourselves more boldly on the nomenklatura principles of their selection and placement. For practical purposes the Bureau of the Presidium of the USSR DOSAAF Central Committee has already rejected the practice of filling positions by dictate from above. This direction must be supported as well. The objective of elective agencies is to create the conditions for growth of personnel, to take notice of and support the capabilities of the people, and to teach them on the basis of the laws of a lawful state and a market economy.

10. Shaping public opinion regarding the defense society. Our ties with public organizations and the mass media must be reinforced, and in some places restored, with this end in mind. We must consider in a practical plane the problems of creating the appropriate information offices under the elective agencies.

We also need to take all possible steps to utilize the defense society's press more effectively. I think that it would be in our common interest to retain the newspaper SOVETSKIY PATRIOT and the journals that have, as their purpose, disseminating military knowledge and encouraging young people to participate in technical sports. All of these publications express our common policy, and it would be a mistake not to support them materially in today's hard times.

Such was the report on DOSAAF's reorganization. How was it received by the plenum's participants? Was something in it perceived to be fundamentally new? After the society's Tenth All-Union Congress, you see, the subject of yearly discussion was always essentially the same. The only difference is that while before, the word used most often was "perestroyka," now it is "reorganization." Understandably, there is no great difference between the meanings of these words. But the difference between this report and previous ones is great: While those were basically written in the center, this one was dictated by the changes that have occurred in a number of republic defense organizations.

Naturally the report could not answer all of the questions. Especially those brought into being by our troubled times, by the complexities of economic and political life. Still, it incorporated what analysis has revealed about the solved and unsolved problems, about what was found, lost and suffered by DOSAAF organizations in the struggle for survival, thus introducing a truly fresh

stream into the flow of the long, torturous and sometimes fruitless efforts to find the most correct path of development.

The plenum's participants listened to the report and to this realistic assessment of the possibilities of the society, the bold conclusions, and the specific—albeit not undebatable—recommendations. It was quite reasonable to expect business-like exchange of opinions in the debates. All the more so because the second issue—amendments to the Charter—provided the soil for serious, responsible, concerned discussion in both the meeting rooms and lobbies.

The first to speak was A. Abdrakhmanov, chairman of the Kazakhstan DOSAAF Central Committee. He talked about the very painful issue of training conscripts, which has grown noticeably more complex in connection with insufficient financing by the Ministry of Defense. Considering the difficulties of the period of reform in the armed forces, Almasbek Seitovich proposed reviewing for DOSAAF the list of specialists required by the army and navy, and conducting an all-union scientific methodological conference on the issues of preparing young people for military service in today's conditions.

The statement by Turkmenistan DOSAAF Central Committee Chairman B. Khaydarov was also objective and well grounded. During a break he shared the following ideas in an interview with a SOVETSKIY PATRIOT correspondent:

"For practical purposes our country's defense society is still a unified organism. And you know, I'm glad of that. Especially if you consider that as with many other republics, Turkmenistan is in favor of preserving unified armed forces. But of course, the center must become something different. We don't need a cumbersome, stagnant, authoritarian organ. We need a mobile, flexible, coordinating one. We must look the truth in the eye: We shouldn't work alone in solving the problems of patriotic indoctrination, development of technical sports work, and material and technical support, and before long, we won't be able to work alone. On the other hand a much smaller central staff could deal with these problems quite well, even with the greater independence of the republics. On the condition that it is manned by qualified people who think in a new way."

And here are the opinions of other participants of the plenum.

V. Nyagu, chairman, Central Council of the Moldovan Republic "Sports and Technical" Society:

"We shouldn't get ahead of ourselves: As long as the unified economic space of the sovereign republics persists, we should doubtlessly also retain what I might call the unified technical sports space. At its expanded plenum, our Moldovan Sports and Technical Society agreed categorically that when it comes to technical sports, we remain a member of the USSR OSTO. Though an independent one, of course. We need to

consider the situation. The Moldovan leadership prohibited the activity of union structures on republic territory, and therefore it cannot be part of the union under the previous terms as a subdivision of a unified organism. Our principal orientation is toward our own sovereign republic, and its needs and requests. But we can work as part of a confederated formation as well. I am unquestioningly in favor of contract relationships, including with the center, which must fulfill the will of the republic organizations, and help them interact. Moreover the center itself should consist of representatives from the republics."

A. Mikheyev, chairman, Bryansk Oblast Council of the RSFSR OSTO:

"The main problem of the defense society today is an economic one: How is it to survive in the conditions of raging inflation, and higher prices? The wages of OSTO workers are below the Russian average, as a result of which we are already losing good personnel at a catastrophic rate. We need to get everything the Ministry of Defense owes us—it totals tens of millions of rubles. But the main thing is that we need to develop entrepreneurial activity, we need to make money.

"As far as establishment of a union of defense organizations is concerned, from my point of view it must be organized on the basis of a system of contract relations between republic organizations, with each of them determining its degree of integrity for itself. And the central organ must be a derivative of the intentions of the republics, and not vice versa, as has been the case up until now. I think that cooperation will continue to be close. Evidence of this can be found at least in the fact that friendly relations and mutual interest are still present between the leaders of the defense organizations."

Yu. Blokhin, chairman, Bashkir Council of the RSFSR OSTO:

"I think that we're still in a rut, and we haven't yet abandoned our desire to bring back the obsolete past. We need to march toward independence and the market more boldly. I feel that any activity of our organizations locally is proper if it assists development of technical forms of sports and patriotic indoctrination of the young. For example we have created a commercial center headed by a director enjoying the rights of a deputy chairman of the Bashkir OSTO Council. The center is presently developing the basic directions of cost-accounting and financial activities. All rayon and city defense and sports organizations of the republic will be able to utilize the results. I feel certain that the chairman of the city (rayon) OSTO council should be the main person responsible for mass defense work locally."

A. Kotelnikov, chairman of the council of the primary OSTO organization of the Power Generator Production Association, Udmurt ASSR:

"Almost nothing was said at the plenum about the problems of the primary organizations, even though defense and sports work requires considerable effort at this level today. My foremost concern today is to preserve the organization. And this means that we must strengthen and expand the existing material and technical base. But that's not all that is troubling me. I am concerned by growing symptoms of moral degradation of our working youth, and tomorrow's conscripts. Before, patriotic indoctrination was limited in our council to just plans of measures and posters. Our lectures and discussions do nothing for the minds and hearts of the young, stupefied by the so-called 'vidicams' of foreign origin. And where is our Soviet video production? Is the corresponding directorate of the DOSAAF Central Committee giving any thought to this? We've fallen behind in this area, and how!"

Such are the problems that troubled many who came to the plenum in Moscow. Unfortunately, there were disappointments as well. How is it that we, who have said so much about democracy, glasnost and pluralism, have suddenly become so intolerant of views and convictions we do not share?

But then it all started when Yu. Novikov, first deputy chairman of the directorate of aviation training and aviation sports, spoke in defense of the recently created Russian National Aviation Association, and its president, S. Maslov. The noise in the hall and the shouts literally deafened the speaker. A statement by USSR Aircraft Model-Building Sports Federation Chairman V. Brusov, who supported Yu. Novikov's arguments and criticized the draft (amended) Charter of the USSR OSTO Union, also poured oil onto the burning fire of intolerance of dissent.

Ignoring the topics at hand, some speakers devoted their main attention to condemning the actions of S. Maslov and other aviators, seeing creation of the association as nothing more than a threat to the integrity of the defense society. Nor was the speaker giving the concluding remarks able to resist saying tactless things about V. Brusov. This kind of deviation from the agenda, and the inability of some of the members of the DOSAAF Central Committee to calmly hear out their opponents, and reply reasonably, without descending to coarseness, noticeably diminished the impression made by the work of the plenum.

Whether or not the Seventh Plenum of the DOSAAF Central Committee will in fact assume "a special place in the history of the defense society," as was declared at the beginning of the report, time will tell. But there is certainty that new, resourceful, enterprising members of the Central Council of the USSR OSTO Union will be able to work together with the new leaders to decisively eliminate the obstacles to reorganization, and help transform the former USSR DOSAAF out of a centralized structure into a mass public organization that acts creatively, on an independent foundation.

We can confidently say today that the period of half-measures, which has plagued the country's defense society for several years, has come to an end. The first complete step toward comprehensive reorganization has been taken.

Resolutions Listed

92UM0132B Moscow SOVETSKIY PATRIOT in Russian
No 45, Nov 91 (Signed to press 5 Nov 91) p 7

[Resolutions of the Seventh Plenum of the USSR DOSAAF Central Committee]

[Text] Having listened to and discussed the report "On Reorganization of the Defense Society" by Colonel General N. N. Kotlovtssev, chairman of the USSR DOSAAF Central Committee, the Seventh Plenum of the USSR DOSAAF Central Committee resolves:

1. To instruct the Bureau of the Presidium of the USSR DOSAAF Central Committee to generalize, within a month's time, the proposals stated by participants of the plenum of the USSR DOSAAF Central Committee, and to draw up a plan by which to implement them.

2. In connection with change in the political situation and creation of defense organizations in sovereign republics of the country, to deem it necessary to transform the All-Union Voluntary Society for Assistance to the Army, Air Force and Navy into the Union of Defense and Technical Sports Organizations (Societies) of the USSR.

3. To reorganize the USSR DOSAAF Central Committee, elected at the Tenth All-Union Congress of the defense society, into the Central Council of the Union of Defense and Technical Sports Organizations (Societies) of the USSR.

Having examined and discussed proposals to amend the USSR DOSAAF Charter, the plenum of the USSR DOSAAF Central Committee resolves:

1. To amend the USSR DOSAAF Charter.

To publish the Charter of the USSR OSTO Union, as amended, in the press.

2. To announce a contest to develop the emblem of the USSR OSTO Union.

To instruct the presidium of the Central Council to summarize the results of the contest, and to prepare insignias, flags and seals of the USSR OSTO Union on the basis of the approved suggestion.

Prior to resolution of this issue, to permit use of the emblem, flag and seal of the USSR DOSAAF.

Military Medical Personnel Salaries Increased*92UM0133B Moscow IZVESTIYA in Russian
13 Nov 91 Union edition p 3*

[Unattributed Article: "Army Employees' Salaries Have Been Increased"]

[Text] The USSR Minister of Defense press center has reported to a TASS correspondent that salary increases of 20 percent will be given to workers of leading professions at military medical institutions, rest homes, boarding houses, preventive clinics, tourist centers, military educational institutions, schools, boarding schools, children's preschool, after-school and cultural enlightenment institutions, theatrical-performance enterprises, sports organizations and archives. Salary increases of 50 percent will be given to the remaining workers and employees of USSR Ministry of Defense medical institutions, enterprises and organizations deployed on the territory of the Latvian, Lithuanian and Estonian republics.

It has been determined that USSR Ministry of Defense cost-accounting enterprises, institutions and organizations are applying legislative acts and decisions of the appropriate republics at their own expense.

Military Families in Germany Face Medical Costs*92UM0133A Moscow IZVESTIYA in Russian
12 Nov 91 Union edition p 4*

[Article by S. Guk: "It Is Bad to be Poor and Sick, Especially in a Foreign Land"]

[Text] At the Bug City Clinic near Berlin, German doctors conduct their struggle for the lives of the three children from the families of Western Group of Forces Soviet servicemen. All of the small patients has the same diagnosis—leukemia (cancer of the blood). Another hundred Soviet children who suffer from various chronic illnesses are hospitalized at hospitals of the other new lands of the FRG [Federal Republic of Germany].

Soviet officers and their families are the late victims of German unification. During the years that the GDR [German Democratic Republic] existed, their treatment was free of charge: on this point, an agreement existed between Moscow and Berlin on bilateral free medical assistance. Today everything has changed: you need to pay for each injection and for each pill. In accordance with Article 22 of the agreement on the presence of Soviet troops in Germany, since October 3, 1990, German hospital funds have been closed for Soviet patients.

A special order issued by Federal Public Health Minister Herda Hasselfeldt frankly states: "Henceforth, hospital funds or other social institutions do not bear expenditures for ambulatory or in-patient treatment of these individuals, they must be withheld from the patients themselves or from their parents...."

The minister went on even further: if the need arises, a law suit must be filed against the parents for expenditures incurred during the treatment of the sick children of Soviet servicemen. A two-year therapeutic treatment for one sick child costs more than 60,000 marks. By way of illustration, a Soviet lieutenant's monthly wages total 700 marks.

Naturally, the mother of three-month old Andrey is not capable of collecting the required sum. "I do not intend to reproach anyone but these children also have a right to life. It is impossible to abandon them to die if there is a possibility of saving them," she said in despair. Chances for curing her son, if he is sent to the Homeland, are five percent; in Germany, eight of ten children get well after undergoing the appropriate treatment.

The doctors and parents have attempted to resort to voluntary contributions. They managed to collect more than 100,000 marks but even this source rapidly dried up. The children continue to be in the clinics illegally: treatment without medical insurance—is a matter subject to jurisdiction in Germany.

The German doctors are annoyed: in principle, doctors can also be held responsible for refusing to aid the sick (if they simply throw them out of the clinic and tell them: let them send you home). The Bug Clinic Chief Doctor accuses the Federal Government: "The politicians should have long ago found some sort of humanitarian solution and should have found the resources to pay for the treatment. To send these children to the Soviet Union is a death sentence for them."

The doctors themselves have found a solution to the conflict situation: they are refusing to terminate the treatment even under the threat of being held accountable. One of them appealed to his colleagues for civil disobedience and said that laws are laws but there are cases when you need to act according to your conscience.

Meanwhile, Ms. Minister has somewhat softened her position by expressing her own participation in the fate of the unfortunate children and by appealing to do all that they can to help them. The only thing is that, unfortunately, the resources required to do this are not in the federal budget, she stated, adding that, in her opinion, the Soviet military administration should assume responsibility for the expenditures. However, the Soviet military administration has its own view on things: the German authorities should pay the medical bills.

We need to add a little bit more to this material that was prepared based on an article in the German magazine DER SPIEGEL. Our rulers have always been distinguished by the fact that they have never begrudged resources for anything except for their own fellow citizens. For "the largest projects in the world," the realization of which has later turned out to be ecological calamities and catastrophes. For window-dressing propaganda shows. For billions of rubles in financial "injections" to any newly emerged Third World leader who just states that he is selecting the

"socialist path of development" (at the same time, having the same idea of socialism as our "mind, honor, and conscience"—on humaneness and compassion).

And today: assets are found for maintenance of the military machine that has swelled up to the point of outrage but they cannot allocate even an insignificant fraction of the allotted state budget resources for the treatment of children of servicemen. Our enemy of yesterday is the FRG and it has turned out to be more charitable to foreigners than our command authorities have been to their own people. Horror and shame—this is what we have been reduced to.

Tizyakov Accused of Corruption in Running Missile Plant

92UM0167A Moscow KOMSOMOLSKAYA PRAVDA
in Russian 16 Nov 91 p 2

[Article by KOMSOMOLSKAYA PRAVDA Correspondent V. Sanatin, Yekaterinburg: "Paper Intermediate Range Missiles Catch Up with Tizyakov at Matrosskaya Tishina"]

[Text] I have learned from confidential sources at Sverdlovsk UKGB [Administration of the State Security Committee] that A. Tizyakov, one of the co-authors of the August putsch, was not only an experienced political plotter but also an experienced swindler in the economic sphere.

No, the former director of the plant imeni Kalinin did not sell intermediate range missiles on the black market. The former director simply... added missiles to the inventory on paper.

I cite a document: "After 20 missiles that had been manufactured in 1984 had been remarked, the customer paid 326,000 rubles each for them, according to certificates No. 17, 18, 19, 22, 23, and 24 dated February 28, 1985 and No. 64 dated March 30, 1985, and also accounts No. 40 dated March 1, 1985, No. 41 dated February 28, 1985, No. 43 and 44 dated February 28, 1985 and No 71 from March 1, 1985. Throughout the first stage. And in April 1985 during the second stage, they were presented and paid for and once again entered into the inventory of the enterprise and military mission."

Here I catch my breath. I am stunned by the "profit" of the swindle—R6,520,000. For 20 paper missiles!

But I am even more stunned by the accuracy of the KGB document: "Entered into the inventory of the enterprise and military mission." What does this suggest? The fact that Tizyakov entered into secret deals and agreements with the military long before the putsch and that is obviously why he ended up among those chosen.

The financial affairs of putsch participant Starodubtsev are already well known. The organs prefer not to dwell at great length upon Tizyakov. It is a pity that trivial swindlers and lovers of the "green snake" intended to

bring discipline and order to the country. But it is twice the pity when you know that this document has already been lying for a long time on the desk of Russian State Security Service Chief V. Ivanenko. It is lying there and not going anywhere.

One can only guess why Ivanenko is silent. This document did not get to Moscow from the hands of the official leadership of Sverdlovsk UKGB. This document, like a visual aid on the spinelessness of law enforcement organs, was sent to the commission that had arrived from Moscow, from Ivanenko, to investigate the opposition of 64 that had developed in Sverdlovsk UKGB. The commission was in Sverdlovsk in January, long before the putsch. And long enough before the putsch it could have said who was who, beginning with Tizyakov. But obviously it was more important for the commission to investigate the democratic opposition in the monolithic ranks of the secret department. The KGB opposition was later summoned to Kryuchkov and reeducated. And they modestly forgot about the Tizyakov affair....

Right now it would not be a sin to ask Sverdlovsk UKGB Chairman E. Boytsitskiy why Directorate Agent V. Berdnikov, who dug up the affair with the missiles, was initially removed from the staff and later terminated. According to the unofficial calculations of the democratic opposition which also did not destroy Sverdlovsk UKGB, they have submitted reports on the dismissals of 47 agents during the last six months.

I think that the most important KGB investigations that are being shelved by the leadership are increasingly finding their way into the major press for this reason alone. If secrets of the most secret state department are simply fermenting among the bushes and basements—this means one thing: the department as before is serving a narrow clan. Dozens of agents are suffering from the duplicity of the situation: they would like to serve the people but they have to clean house on the sly and clean the "boss's" kennel. And when you have walked on the "boss's" floor—leave.

"... We are seeing a dual entry of 9M82 items in the inventories for 1984-1985 which may be categorized by Article 152 (annotation) of the RSFSR Criminal Code on accounting entries and other distortions when fulfilling plans... the obviousness of the advisability of dismantling finished items for those being assembled for research work at 'Novator' SM [expansion unknown] Design Bureau indicates the premeditated violation of financial discipline at the level of SPO [Scientific Production Organization] 'MEIK' [expansion unknown], 'Novator' SM Design Bureau, USSR Ministry of Defense VP [expansion unknown] 1219 when the customer paid for items."

A. Tizyakov was this 'innovator.' Sverdlovsk KGB agents have known this for five years and have hidden this for five years. Besides former Agent V. Berdnikov,

the document was signed by KGB Agent V. Yeroshenko who still works in the organs at this time and who has just been transferred from the Urals to Kazakhstan. "I concur with the conclusions," wrote V. Yeroshenko, former USSR UKGB subunit chief for Sverdlovsk Oblast, on May 26, 1986.

Five years have passed, Mister law enforcers! What whales have taken a bath with impunity in state finances. How proudly they swam past the eyes and ears of the KGB and past the naked and disrobed people, heaven knows whom the people believed would protect their national wealth....

Development of Non-Traditional, Laser Weapons

92UM0066A Moscow *TEKHNICA I VOORUZHENIYE*
in Russian No 4, 91 (Signed to press 16 May 91) pp 6-7

[Article by Doctor of Military Sciences, Professor, Colonel V. Krysanov and Lieutenant-Colonel A. Miroshnikov: "Non-traditional Weapons"]

[Text] In the opinion of foreign military experts, the modern level of development of science, equipment, and technology permits us to develop weapons that we can use to totally disable both existing and future combat vehicles or to substantially reduce their effectiveness. In contrast to conventional weapons that are oriented, as a rule, on the total destruction or annihilation of targets, the new weapons will be able to provide the greatest effect due to their impact on vitally important components or subsystems using non-traditional methods. The foreign press designates this new class of weapons with the term "antimaterial technology" (AT). Utilization of beam energy, an electromagnetic pulse, powerful microwave isotropic radiation, infrasound, and also corrosive chemical substances serve as its basis.

It has been reported that foreigners are currently devoting a great deal of attention to the development of beam weapons, specifically laser and particle beam weapons. They assert that operational models of these weapons already exist. The operating principle of laser weapons is based on the thermomechanical effect on a target of a narrow beam of electromagnetic radiation which is generated by lasers in the optical range of the spectrum. They differentiate three primary types of such weapons: low, medium, and high-power. Thus, the low and medium-power systems are proposed for use to suppress command and control facilities and weapons guidance systems and to blind tank crews, vehicle drivers, helicopter pilots, and gun crews. They plan to use them under combat conditions to supplement and expand the fire capabilities of traditional weapons. As for high-power laser weapons, it has been reported that high-power laser weapons are primarily designed to increase the capabilities of air defense forces to destroy low-flying airborne targets (see page 4 of the insert) and also important troop facilities directly on the battlefield.

The casualty and damage effect of beam (accelerator) weapons is combined: radiation and thermomechanical. The radiation effect is caused by the impact of elementary high energy particles on the cells of a living organism, electronic apparatus, and electronic components of weapons and military vehicles. Target destruction is achieved not only directly by the charged particle beam but also by radiation that is given off to them in the form of high energy photons when they pass through the air medium. The thermomechanical effect can cause combustion, melting, and evaporation of the target's materials.

According to foreign military experts, this weapon can be successfully employed to destroy the skin on the body of low-flying helicopters, aircraft, and cruise missiles.

Ground-based equipment and elements of fortifications made from steel and steel-reinforced concrete can be instantaneously permeated by radiation if they are located in the line of direct range. In so doing, the personnel located in them will be killed by radioactive irradiation. It has been reported that work is currently being conducted to develop ground-based, airborne, and sea-based elementary particle accelerators with an operating range of several kilometers. The operating range may be significantly increased in the future.

On the whole, foreign military experts are inclined to regard beam weapons as "absolute," suggesting that due to the "zero" time of propagation and the total inertness of the radiation, it can be directed to any side practically instantaneously. They also consider the weapon's high accuracy to be a great advantage. Target tracking is carried out according to reflected radiation pulses and high-speed computers are used to correct and maintain the beam's focus.

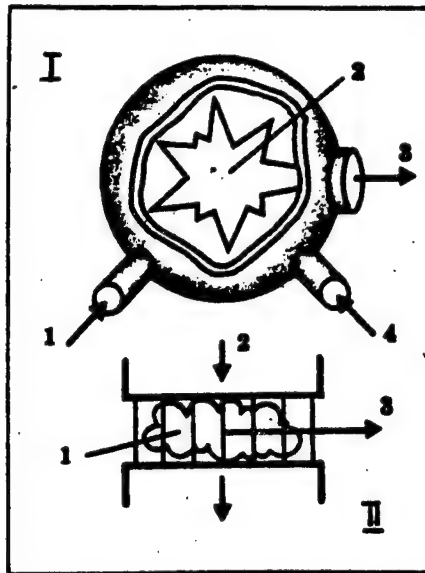
However, as they report, beam weapons cannot totally satisfy troop requirements. First of all because we can consistently destroy, as a rule, only single targets using beam weapons. Recently, a great deal of interest is being expressed in such types of non-traditional weapons which could affect a multitude of targets simultaneously (this is a question of so-called energy effective "zone" weapons).

They think that electromagnetic weapons can become one type of antimaterial technology. Using an electromagnetic pulse, it will be capable of destroying enemy personnel, disrupting the operation of the troop command and control system, and even (with a high-power pulse) stopping the engines of military vehicles. They think that electromagnetic weapons will receive sufficiently broad application in PVO [air defense] and also in the ground troops thanks to these properties. A light infantry division will be able to successfully oppose a mechanized or armored division.

According to foreign press information, designs of special electromagnetic weapons with an output of up to 500 kw and with a radiation frequency of 100,000 MHz are closest to practical realization. They think that, while operating in continuous mode, they will provide radiation that is adequate to disrupt the functions of the psyche and conduct of a man at a range of up to eight kilometers.

Foreign experts think that they will attain the greatest impact on enemy electronic systems through the introduction of microwave weapons. They assert that using these weapons they will be able to create jamming and disrupt the operation of practically all electronic systems used by the troops. Such electronic devices as magnetrons and klystrons, which they plan to use in the future to develop radio frequency signals with an output of up to one GW [gigawatt] (one billion watts), compose the foundation of this type of weapon. Researchers suggest that microwave radiation, disseminated by an antenna

Figure 1. Types of Lasers:



Key:

I. Chemical:

1. fuel;
2. combustion chamber;
3. laser beam;
4. oxidizer;

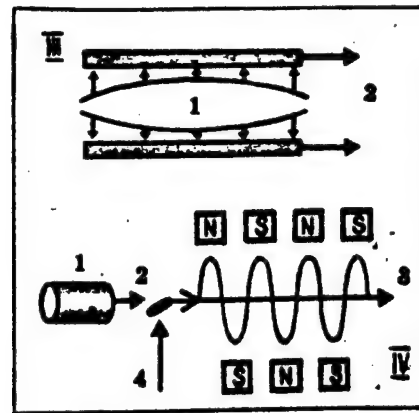
II. Electrical:

1. laser gas;
2. electrical current;
3. laser beam.

manufactured in the form of a phased array, will be used to paralyze the operation of airfields, missile launch pads, command and control and navigation system centers and facilities, and also to disable guided weapons and command and control systems by affecting such of their components as electronic command and control, communications, and weapons guidances systems. They are also working on designing a microwave radiation source that is capable of generating a radiation pulse with energy of 10,000 Joules. They allow the possibility of developing antitank microwave weapons with an operating range of from 300 to 500 meters.

Foreign military experts consider so-called "infrasound weapons" based on the use of directed acoustic (sound) wave energy to be no less promising. Infrasound—low frequency (lower than 16 Hz) sound waves (resilient) unheard by humans—is the casualty and damage factor. Research conducted abroad has shown that such infrasound oscillations can affect a man's central nervous system and digestive organs, causing general discomfort, head aches, painful sensations in the internal organs, a panic state, and loss of control over oneself. People can experience loss of consciousness and even blindness and death under higher signal levels at frequencies in single

Figure 2. Types of Lasers:



Key:

III. Nuclear:

1. nuclear explosion;
2. laser beams;

IV. Free electron.

1. accelerator;
2. electron beam;
3. laser beam;
4. laser.

hertz. As a result of this, they think that infrasound weapons can become a new factor of mass destruction and the abrupt reduction of the combat capability of troops, their steadfastness and aggressiveness in combat.

According to foreign press information, special weapons in which two electro-acoustic transformers, a direct current generator with an output from 2-8 kw, and a control panel can be viewed as systems that support the use of infrasound weapons. These "sound cannons," as they are sometimes called, can be installed on vehicles (infantry fighting vehicles and armored personnel carriers) and also on helicopters (aircraft). Their operating range is determined by the size of the radiated output, the value of the carrier frequency, the width of the radiation pattern, and the propagation conditions of acoustic oscillations (waves) in the actual environment and may total from tens to several hundreds of meters.

According to foreign military experts, some forms of non-traditional weapons permit them to attain a substantial reduction of the capabilities of military equipment without directly effecting them. For example, using extremely corrosive chemical substances against logistics supply systems can significantly restrict the capabilities of a tank formation. These substances could destroy the coverings on vehicle tires, filters, rubber technical items, and penetrate into the fuel or interact with the powder charge of ammunition changing its chemical composition. They think that in a number of cases the massive impact of these weapons on the logistics supply system can be more effective than a direct strike against armored vehicles.

Despite the complexity of developing models of non-traditional weapons and the high cost of realizing planned programs, the military experts of leading Western countries predict a great future for them thanks to their specific combat properties. First of all, they think that if they conduct an assessment on "cost-effectiveness" criteria, they will be significantly more effective than existing conventional weapons. Secrecy, surprise of the use of the new weapons, and the capability to paralyze the entire command and control system provide the capability to inflict preemptive, "blinding" strikes simultaneously against all the components of the troop command and control system. In this case, a situation may arise when a significant portion of troops and weapons that have preserved their combat capability will be compelled to operate in isolation, without command and control from above and without the support of its neighbors.

Furthermore, the new weapons do not require expensive ammunition or logistics support in contrast to conventional systems. But they need "fuel" to function. According to foreign experts, it is significantly easier to solve this task than to support conventional weapons systems with ammunition. The main thing is that in this case expenditures associated with the development, manufacture, storage, and technical servicing of ammunition are eliminated. Special equipment and depots where certain storage conditions are maintained are not required to maintain them. In so doing, they stress that painstaking study of the enemy's vulnerable areas is needed to effectively utilize the capabilities of the new weapons. Furthermore, they can be only a supplement to traditional weapons and not a replacement for them.

Foreign experts are also devoting a great deal of attention to the problem of increasing the survivability of troops under conditions of the use of weapons with the properties indicated above. They think that in this case the combination of active measures associated with opposing them and passive measures to protect personnel are required to preserve troop combat capability.

Among active measures, they single out reconnaissance and destruction of new weapons facilities. For these purposes, they think it is advisable to use ground-based and airborne radiotechnical systems that are capable of automatically ascertaining the location and destroying these military weapons. They think that detection systems that permit them to determine if the illumination of targets is occurring must be part of an electronic reconnaissance system. It has been reported that laser illumination indicators already exist that are installed on tanks and aircraft. It is possible that the destruction of new

weapons and traditional precision-guided weapons, command and control facilities, and also helicopters and unmanned aircraft will occur simultaneously. A great deal of significance is also being imparted to the conduct of electronic warfare. Requirements are increasing for confronting technical and primarily electronic reconnaissance systems and also the creation of jamming in communications systems and the guidance of the new weapons.

Foreign military experts pose the issue of troop protection as follows. First of all they make heightened demands for the protection of personnel from the blinding impact of laser weapons and from the harmful impact of high energy electromagnetic radiation on the organism. To do this, they are developing special glasses and also clothing with increased fireproofing. They are developing surveillance and weapons guidance instrument protection systems.

They think that such traditional protection measures and systems as fortifications, shelters, and trenches will not lose their significance. The importance of camouflage is also being preserved, especially from electronic reconnaissance systems. However, the new weapons are presenting new demands for camouflage measures and they are: they must simultaneously insure not only the secrecy of equipment and weapons but also their protection from electronic guidance and weapons systems. This means that vertical and horizontal masks and screens should not only hide them from detection but also protect them from beam or other weapons.

They assert that military equipment and facilities must be hidden from detection by electronic systems by reducing the transparency of the medium between reconnaissance systems and the facilities camouflaged by using aerosol curtains. Considering the propagation properties of a laser beam in the atmosphere, specifically, reduction of its effectiveness, the protective significance of aerosols is being maintained under the conditions of the use of laser weapons. However, special requirements are being presented to aerosol formations: they must weaken the effects of the new weapons and impede detection of concealed facilities. It has been reported that at the present time, foreigners are developing so-called thickening, metallic, and other aerosols. Along with the measures we have examined, they are conducting other measures, specifically of a technical nature, that are directed at increasing the stability of military equipment against the effects of the new weapons.

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Azerbaijan Defense Council Formed

92UM0123B Baku MOLODEZH AZERBAYDZHANA
in Russian 5 Oct 91 p 2

[Interview with member of the Azerbaijan Defense Council A. Alizade by AZERINFORM correspondent A. Guseynov: "We Believe That This Is an Essential Thing"]

[Text]

[Guseynov] The Azerbaijan Defense Council is a new state structure in our republic, set up by presidential ukase almost immediately after the formation of the Ministry of Defense. Could you please tell us about the prehistory of the creation of the new council? What role will you, as the representative of the opposition and leader of the Azerbaijan social democrats, play in it?

[Alizade] We note first note that we, the deputies and representatives of the opposition, acted as sponsors in the creation of the Defense Council. Before that the leadership of the republic Supreme Soviet had repeatedly suggested that we travel to Nagorno-Karabakh to replace the organizing committee there. We are ready to agree to that but only on condition that our powers be clearly defined and that we have subordinate to us at least a 10,000- to 15,000-strong armed detachment. For it is only in that case that we shall be able to provide real help for the local population and liquidate the Armenian gang formations. After being convinced that our proposals were receiving no response, I telephoned the president of the republic and on behalf of the 14 opposition deputies I asked for an audience. A.N. Mutalibov received us immediately and listened carefully. We discussed in detail the possibility of setting up a defense council after we had defined its composition and tasks in general terms. I would also like particularly to emphasize that we four opposition deputies who are members of the Defense Council are part of the council not as representatives of our own parties but as people capable of quickly organizing the formation of a national army. In addition to us, experts from various sectors of the national economy are council members.

[Guseynov] What is the council's general task?

[Alizade] First of all to coordinate all work in setting up a national army. In contrast to the Ministry of Defense we shall have the right to use all the enterprises and organizations of Azerbaijan in the work to form the army, and for a while some of them will even be subordinate to us. The situation is such that everything must be done quickly and professionally. The army should be built not on charity but first and foremost using budget allocations and making use of the weapons available in the Soviet Army, for we had a not inconsiderable part in its creation. Here I would like to express my opinion on the duties of the minister of defense. He should be a civilian with great organizational experience and enjoying prestige among the population. The chief of staff, who deals with operational work on and the direct

formation of the military subunits, should be a military expert. I disagree with the concept of the present defense minister to send 50 percent of the draftees into other republics.

[Guseynov] And how do you personally see the Azerbaijan national army? Should it have the generally accepted structure of the armed forces of a sovereign state, or something different?

[Alizade] I am not a supporter of a mononational army; every citizen of the republic regardless of nationality should serve in it. We should try to create an army built on the principle of defensive adequacy and having all the branches of the armed forces—navy, air force, air defense, technical, border, and so forth. But time is needed to form it. Now it is necessary to form a volunteer army out of men who have already completed their compulsory service, providing material and social privileges for them and for their families. As far as strategic forces are concerned, they should be subordinate to an interrepublic center whose leadership should include representatives of all the republics.

[Guseynov] And what is your opinion about the military schools located in Baku, and also the servicemen serving with the Soviet Army on the territory of Azerbaijan and now liable to be retired because of the cutbacks?

[Alizade] The schools should be subordinate to the republic and should first and foremost train personnel for it, and later for other republics. We shall then also be able to send young men for training at schools located, for example, in the RSFSR or the Ukraine. As far as the servicemen to whom you referred are concerned, we shall be happy to use their experience and knowledge in our own army on a contract basis, offering the same privileges.

[Guseynov] A final question: Does not your participation in the opportunity with the authorities contradict your membership in a state structure like the Defense Council?

[Alizade] We Azerbaijan social democrats are for constructive opposition to the authorities. Now, when the homeland is in danger and must be defended, an army is necessary, and it is not important who creates it—the President or the People's Front, or the social democrats. We believe that it is a thing that must be done and we shall do it.

Commentary on Agreement Between Estonia, Defense Ministry

92UN0418B Tallinn RAHVA HAAL in Estonian,
13 Oct 91 p 1

[Commentary by Sergei Chernov, Government Press Secretary: "Commentary to Agreement Between the RE Government and the Soviet Ministry of Defense"]

[Text] Negotiations between the government of the Republic of Estonia and the Defense Ministry of the Soviet Union that lasted close to a month and were concluded on October 3 were held to establish preliminary measures for dealing with issues relating to the presence of the contingent of Soviet forces in Estonia. The main thing is that the sides reached an agreement on the need to remove the contingent of Soviet forces from Estonia.

By November 3, logistics and deadlines are to be worked out for the removal of motorized units, air defense, aviation and air force units, as well as units relocated from Eastern Europe. A separate schedule will be set up for the removal of naval forces, because they are relatively autonomous compared to the rest of the armed forces. Within a month, the status of Soviet forces within the territory of the Republic of Estonia will also be established. During these preliminary talks it was not possible to determine for how long after that time the Soviet forces will stay within the RE [Republic of Estonia] territory, and how long the removal process will take. The final limit for the stay of foreign forces in Estonia will be set in a state-level agreement "On the Conditions and Deadlines Regarding the Removal of the Soviet Army." This agreement is to be ratified by the Supreme Council. Estonian government's position at these negotiations was introduced to the Supreme Council by the prime minister, when he presented the main points of the second part of the 3x3 program. Basically, the government stipulates that the armed forces be removed during the year of 1992.

One of the most significant benefits of the agreement revealed today is that, from the time of its signing, no additional military units should be brought into Estonia, and that the personnel level of existing units should not exceed that of September 1, 1991. All movements of military units and all training exercises are henceforth to be coordinated with the government of Estonia. An inventory of lands being used by the military would be taken, in order to return them to the authority of the Republic of Estonia, starting with lands that were not obtained legally or not being used. It was acknowledged that an agreement between the governments will establish rental fees for the use of land by the military.

Also reviewed will be possibilities for the transfer of weapons, ammunition and other military equipment to the government of the Republic of Estonia, on terms profitable to both parties.

Of special significance is Article 11 of the agreement that stipulates that the agreement will remain in force until the removal of the Soviet forces from the territory of the Republic of Estonia is completed. This establishes, for the first time, that no Soviet military bases will be retained and that the forces will be removed completely.

Separately, an agreement was made for the paratrooper units based in Võru and Viljandi, which are offensive in nature, to be removed within one month.

The agreement was signed by Edgar Savisaar, prime minister of the Republic of Estonia, and Air Force Marshall Yevgeni Shaposhnikov, defense minister of the Soviet Union. Participating at the negotiations were Raivo Vare, state minister of the Republic of Estonia, and Colonel-General Anatoliy Kleymenov, deputy chief of general staff. Work to guarantee the actual implementation of this agreement has begun.

Estonian Environment Minister Discusses Damage Caused By Military

92UN0418J Tallinn OHTULEHT in Estonian
26 Oct 91 p 1

[Unattributed article: "Environment Minister Met with Representatives of Military Units on Environmental Damages"]

[Text] This week Tõnis Kaasik, minister of the environment for the Republic of Estonia, sent a telegram summoning the authorized representatives of all military units stationed in Estonia. The objective was to discuss the damages caused (and still being caused) to the environment of Estonia by the military, and ways to compensate for such damages. They came indeed. The highest ranking man was Major-General Anatoli Gaponov, deputy chief of the Baltic Military District. Quite a few of these authorized persons tried to make a point that, actually, they have no power to decide on anything. Meaning, they had the authority to pollute, but not to speak of the results? Despite all that, the discussion proceeded without resorting to ultimata. Maybe the military chiefs realized that they themselves may have to live here for some time to come. If the latest word from the Soviet military circles can be trusted (removal of troops from the Baltic states will start after 1994), this could be quite a few years.

It is important to do it before the Soviet forces leave Estonia

By this Tõnis Kaasik means researching the environmental pollution caused by the military. By means of commissions which, according to mutual agreements, should be formed by November. Otherwise it may go the way it did in many places in Western Europe. The Soviet forces left. And once they are gone, the chances for determining what they really left behind are very slim indeed. For examples of this, we don't have to look far. A rocket unit left Kadila in Western Virumaa several years ago. But what is the content of the huge storage containers dug into the ground at the unit's former location remains a mystery to this day.

You always have to assume that someone is out to cheat you

And that even when people seem to be working for the same goal. There has been cheating and hiding for years.

The uranium processing plant at Sillamäe was acknowledged for what it was only after it had ceased functioning. Up until recently, the existence of the two nuclear reactors at Paldiski was denied categorically.

The major sources of concern are known to all: Military air fields, storage facilities for fuel and explosives, ship repair facilities, etc. This known environmental hazard, according to Tõnis Kaasik, boils down to the most ordinary of causes: Carelessness. Basically, it is crude oil that causes most of the pollution in these places. Explosives present a more complicated problem. This goes beyond the narrow definition of environmental pollution. There could be cause (and probably is) to fear something far worse. **Where is the radioactive waste from the Paldiski nuclear reactors buried?** Or was it drowned instead? Why is one part of that aquatorium so closely guarded that no ship can go through there? We also don't know where the waste of the Finnish atomic power station at Loviisa is taken. Maybe it will go to the same place the waste of Paldiski is going?

Concern about the military polygons is not a much lesser one. After numerous checks, unexploded bombs from the wartime are still being found in different places in Estonia. Innumerable bombs have been dropped on polygons. How many of those have actually exploded? The military assures us that the polygons are cleared of bombs two times a year. According to papers, this may be so, but actually?

Union Army Able To Depart Estonia Within Six Months

92UN0373B Tallinn OHTULEHT in Estonian,
23 Oct 91 p 1

[Unattributed article: "Given the Will, Soviet Army Can Leave Estonia Within Six Month"]

[Text] **About the background.** By now, the border areas of the Republic of Estonia are already closed off without any army or border guards. It would be hard to imagine the reaction of Finns if, one fine day, they could no longer have access to Aaland, or some other small island in the Gulf of Finland. A citizen of the Republic of Estonia cannot go to Saaremaa, not to mention Naisaare. Venturing out any further is totally out of the question. When preparing for a military article, I looked through an old volume in the collection titled *Estonian Statistics* that published, probably for the first and the last time, the exact length of the border marking the Republic of Estonia. There was something else, relating to both economy and politics, that stood out in that volume. In case of a **gasoline crisis** (if that would be conceivable in the real Republic of Estonia), dealers would take off to our northern or western neighbors, even in tugboats, to bring back some fuel. They could not afford a situation where something was not available, and the volume on statistics reflects it clearly. If today, some enterprising man would set out with a motorboat

and a canister to bring back gasoline, the current, independent Republic of Estonia would not allow it. Thus, after having voluntarily relinquished activities characteristic of a normal state, we set out to create our own army. And no wonder it is, knowing the foregoing, that the military regulations being proposed are based on those of our great eastern neighbor.

About the Officials. Estonia's defense force is being created under the auspices of three independent structures whose functions overlap, if not conflict with each other. These are the State and Border Defense department of the State Chancellery (Toomas Puura), State and Border Defense Administration (Andrus Oõvel) and the temporary General Staff of the Military (colonel Ants Laaneots, chief, also consultant to the government). Out of these mentioned, only the third one is a professional.

About the structure. The fact that Estonia's borders need to be guarded cannot be argued. The length of the land border running between the Republic of Estonia and Russia is 129.39 kilometers. Let's add to that the water borders of the lakes Peipus and Pskov, which measure 147.28 kilometers. The land border between Estonia and Latvia is 355.69 kilometers. These figures reflect the situation before the occupation of Estonia in 1940. The coastline is particularly long, measuring as much as 3,0403.53 kilometers, including coastlines of all the islands. Estonia also needs a convoy regiment for guarding prisons and prison camps, and a certain number of **special police units**. And, Estonia may also need a **ceremonial company** for receiving high-ranking foreign visitors, and a certain number of technical and communications units. This part is indisputably clear. But why the **army**? *Where is the external enemy, whom we could resist with our meager resources?* In the East? In Finland? In Sweden? Neither is the danger going to come from Latvia any time soon. Word has it that in Ukraine a lieutenant is offered three times the salary of an average worker. I seriously doubt that the Republic of Estonia can fit that into its budget. That fact alone will put the army being created somewhere below the professional level (this, in addition to the fact that the people dealing with the creation of the army are not exactly of professional caliber).

Estonian forces—Soviet army. To evaluate the situation rationally, it becomes clear that our own army would be needed only to balance and to monitor the Soviet military forces here. Instead of leaving Estonia, the occupation units tend to threaten war against our independent state (or how else could one interpret the review of the letter received from officers and servicemen of the Soviet army, as it was published in RAHVA HAAL). One of the first units scheduled to leave Estonia was the paratroop battalion of Võru, but the 21 officers of that unit also sent a letter requesting to stay in Estonia. True, they think that under certain circumstances they can serve the interests of the Republic of Estonia, and cover the border between Valga and Lake Peipus. The division based in Tondi has designated the Tapa and Klooga area as the new location for their staff. Revealed, with this

message, is also the fact that even if they left Tallinn, they are not ready to leave Estonia. The guidance platform and field of antennas belonging to the Filter Way air defense division are in Pääsküla, next to the city limits, along the Pärnu highway. Nobody seems to be interested in liquidating that either. Neither has there been talk about getting rid of the atomic mines buried in shafts around Tallinn. To whom does the back-up communications center near Kose-Risti belong—a whole subterranean empire? The Navy has also not revealed any plans about leaving Tallinn (staff plus six battle-ships). This has been considered as a benefit of sorts—the Republic of Estonia can use navy experts—to deal with hydrography and other such matters. And the coast guard supposedly needs 180 small and big ships. These are expected to come from the navy people.

A study of all of these question marks shows that the purpose of an Estonian army would indeed be to monitor and neutralize the Soviet army units, but wouldn't that be too expensive still? And, that being the purpose, could we have our young men serve that much longer than do their counterparts in our neighboring countries of Sweden and Finland?

Because, given the will, it is entirely possible for the Soviet army to leave Estonia within six months. Calculations to this effect have been done. It may be cheaper to show some political will than to support the General Staff of the Military. There has been a lot of talk about whether or not the world, or Europe, understands someone or not. There is one thing, however, that could not be disputed—a demand for the removal of foreign troops (especially when these are stationed within the territory of the Republic of Estonia essentially without any valid agreement) would not be condemned by anyone. Of course, the first thing we need to accomplish that is our own political will. It could happen that, once again, it will be the Lithuanians who get the chestnuts out of the fire, but it may not necessarily go that way.

Paper Claims Guided Missiles Stolen From Tallinn Garrison

*OW3010135091 Moscow BALTFAX in English
1220 GMT 30 Oct 91*

[Following item transmitted via KYODO]

[Text] The Tallinn newspaper "VECHERNIY COURIER" ("EVENING COURIER") reports that 44 anti-tank guided missile systems and anti-aircraft missiles "Strela-2" and "Strela-3" have been stolen from an artillery base of the Tallinn military garrison.

Meanwhile, the newspaper says, Tallinn's "black market" offers various arms for sale. For example, 1,000 cartridges cost 4,500 rubles. According to "VECHERNIY COURIER," one shadow economy dealer said that he would pay \$20,000 for 1 kg of red mercury used in missile and torpedo guidance systems.

BALTFAX Reports Problems in Estonia's Call-Up Program

*OW1611004991 Moscow BALTFAX in English
2030 GMT 15 Nov 91*

[Following item transmitted via KYODO]

[Text] Ants Laaneots, acting chief of General Staff of Estonia's defense forces, told BALTFAX that conscription to the forces began on 11 November. 218 men have already been called up and sent to the training base in Remnika. The next stage of the call-up will proceed on 2 December when 250 young men will be put under the command of Estonia's Interior Ministry.

However, the call-up process is not going well according to Mr Laaneots.

He commented, "The situation is especially serious in Tallinn, where the conscription committees have been unable to enforce the call-up. Some 25-30% of those due for call-up failed to appear at the appropriate committees on the prescribed dates."

Georgian Decree Nationalizes Military Property

*AU2511163691 Tbilisi SVOBODNAYA GRUZIYA
in Russian 19 Nov 91 p 3*

[“Republic of Georgia Presidential Decree on Weapons, Munition, Means of Transport, Military Equipment, Military Bases, and Other Military Property of the Soviet Border Troops and Navy Stationed on the Territory of the Republic of Georgia”; issued in Tbilisi on 16 November]

[Text] In view of the fact that the protection of the interests of the Republic of Georgia, the maintenance of the integrity of its territory, the strengthening of the defense capacity of the Republic of Georgia, its ability to repel any aggression, the protection of its borders, and the establishment of civic peace require the creation of the Armed Forces of the Republic of Georgia and that the creation and development of the USSR navy and border troops were largely done at the expense of the working people of the Republic of Georgia, I resolve as follows:

1. To declare the weapons, munition, means of transport, military equipment, military bases, and other property of the USSR navy and border troops stationed on the territory of the Republic of Georgia as property of the Republic of Georgia.
2. The Cabinet of Ministers of the Republic of Georgia will start negotiations with corresponding organs of state power and management of the USSR for transferring the property specified in Paragraph One of the present decree to the Republic of Georgia.

Zviad Gamsakhurdia, president of the Republic of Georgia.

16 November 1991, Tbilisi.

Georgian Commission to Make Inventory of USSR Army Property

AU2511142391 Tbilisi SVOBODNAYA GRUZIYA in Russian 20 Nov 91 p 1

[Republic of Georgia Supreme Council Presidium Resolution on the Formation of a Commission To Make an Inventory of the Weapons, Ammunition, Means of Communication, Military Hardware, Military Bases, and Other Military Property of the Soviet Army located on the territory of the Republic of Georgia issued in Tbilisi on 15 November]

[Text] The Republic of Georgia Supreme Council Presidium resolves that:

The Republic of Georgia Cabinet of Ministers and the Republic of Georgia Ministry of Defense speedily sets up a commission in order to make an inventory of the weapons, ammunition, means of communication, military hardware, military bases, and other military property of the Soviet Army located on the territory of the Republic of Georgia.

The commission charged with making this inventory is to stop weapons, ammunition, means of communication, military hardware, and other military property belonging to the Soviet Army located on the territory of the Republic of Georgia from being taken out of the republic.

Akakiy Asatiani, chairman of the Republic of Georgia Supreme Council

Tbilisi, 15 November 1991.

Kazakh Military Commissar on Progress of Fall Draft

92UM0170A Moscow KRASNAYA ZVEZDA in Russian 23 Nov 91 First edition p 1

[Interview with Colonel L. Bakayev, military commissar of the Kazakh SSR, by Colonel A. Ladin, KRASNAYA ZVEZDA correspondent, under the rubric "The Fall Draft": "Kazakhstan: Are the Military Hampering Things?"]

[Text] Colonel L. Bakayev, military commissar of the Kazakh SSR, answers questions posed by our correspondent.

[Ladin] It is no longer possible to retain in the forces those who have served out their term and are subject to release into the reserve. But, Leonid Nikolayevich, will they be replaced by young replenishments of the caliber essential to the military units? This is what is troubling commanders at all levels. And once again attention is on Russia and Kazakhstan. How are things going with the draft in the republic?

[Bakayev] I cannot say that everything is developing smoothly. People can see what is occurring in neighboring republics. One frequently hears people say: If they can do it, we are not going to let our sons to be sent away from home either. It is more and more difficult to convince the parents of draftees that the need for a unified armed force has not disappeared. Only with a common effort can we maintain the combat readiness of the army and navy. And Kazakhs have to serve in them. Incidentally, most of our young men have a good general education and physical conditioning, and they are less hampered by the language problem than those of other Central Asian republics.

The refusal of certain republics to send draftees beyond their borders, including not sending them to Kazakhstan, has defined our practice. We have the possibility—and the president of the republic has issued an order on the matter—to assign this fall's draftees to replenish army units, border troops and construction units stationed on the territory of Kazakhstan. Only a small portion of the youth are being sent to perform their regular duty in other republics in the nation. Incidentally, we are not have any particular difficulties in selecting draftees for groups to be assigned outside the republic. Many of the youth have prepared themselves from childhood to serve in the navy, the airborne troops, the air force.... And the desires of the youth are realized, as a rule.

DOSAAB organizations help the draftees acquire a specialty. I am worried that the changes occurring might weaken the system for preparing specialists for the Armed Forces from among the draftees. This requires a lot of money, after all. Does the republic have it? It would be better if the money for this important work could be found in the Union budget.

[Ladin] And how did the selection process for the military schools go this year?

[Bakayev] You know, it went as well as in past years. Working together with the Ministry of Public Education, we were able to save the special schools in Alma-Ata, Karaganda and Chimkent, which, of course, are oriented toward preparing youth for entering military schools. They accept mainly native youths with a poor grasp of Russian. By bolstering the staffs at those schools we have made certain that they will turn out worthy candidates.

Among those entering the schools were many graduates of regular schools, who, despite attacks on the army and attempts to discredit the armed forces, still voluntarily submitted applications to study at the military schools. We exceeded the candidate selection plan by more than 20%.

[Ladin] One has the impression that you are moving along a well-traveled path and without any particular difficulties....

[Bakayev] I would not say that. When he put the republic's sovereignty into effect, Kazakhstan's president

granted greater authority to the military commissariat. While in the past the draft was conducted under the direct supervision of the Turkestan Military District, the system is different today. It has been necessary to establish cooperation with state authorities, without which it is simply inconceivable to prepare young replenishments for the armed forces or to carry out the draft.

Our common efforts were united by a decree issued by the republic's Cabinet of Ministers at the beginning of this year, which regulated the organization of the draft during the year. We did not actually wait for the President of the USSR to issue the regular ukase on the discharge and the draft. It was delayed, incidentally.

[Ladin] Are the draftee trains being dispatched on schedule?

[Bakayev] Not entirely according to the schedule worked out in the republic, which conforms to the agreement which Kazakhstan was the first to sign with the USSR Ministry of Defense. As early as October we were prepared to begin the scheduled dispatch of draftees to their future stations, but.... In the first place, district military communication agencies did not provide us with transportation on schedule. In the second place, telegrams began coming in from the military units stating that they were not prepared to begin receiving the new replenishments. Some of them had not even begun releasing those who had served out their term. Others had not received uniforms, and still others had not readied the sites for receiving the personnel. This is the kind of delays we encountered. They threatened to "defeat" our entire induction campaign. We began to contact the military units by phone and work out agreements to transport the draftees with the transport equipment they had. Some groups had to be sent to their stations accompanied by workers from the military commissariats.

Think of it. The induction began on 1 October, but we did not receive the plan from VOSO [Central Military Transportation Directorate] for the delivery of trains until 10 November. What kind of order is that? This sluggishness has forced Kazakhstan's military commissariats to mark time. More than 60% of the total number of draftees are ready to be shipped out, but as of now we have been able to deliver only 23% to representatives of the military units.

[Ladin] We know that Kazakhstan's military commissariat is now in charge of the draft not just in Alma-Ata Oblast but over the entire territory. Is it succeeding in taking full control of the situation?

[Bakayev] I feel that it is. I would like to thank the oblast military commissars and workers in the Kazakh Military Commissariat for their precise and competent actions. As a result of the establishment of the Republic State Defense Committee in Kazakhstan the republic military commissariat is being placed under its chairman. We now have to direct the commissariats of 19 oblasts.

[Ladin] When will the last draftee depart the grounds of the assembly point?

[Bakayev] On 27 December, I believe. We shall meet our contractual commitments signed with the USSR Ministry of Defense.

Butkevicius on Joint Baltic Defense System

92UN0358A Vilnius LIETUVOS AIDAS in Lithuanian
16 Aug 91 p 1

[Interview with Audrius Butkevicius, general director of the Department of National Defense of Lithuania, by LIETUVOS AIDAS: "The Defense System of the Baltic Countries—Will It Be Established?"]

[Text] The General Director of Lithuania's National Defense Department, Audrius Butkevicius, paid a visit to the Scandinavian countries Norway and Sweden. He told our correspondent Tomas Srebalis the purposes of his journey and what he managed to accomplish for the good of Lithuania.

[Butkevicius] A very significant conference organized by the Scandinavian Civil Defense System took place in Sweden. The subject of discussion there was the rising threat, not only to the countries of the peninsula but also to the entire Baltic Sea region. Scandinavians again consider Lithuania a country of the Baltic region. At the conference they spoke of the dangers that threaten it and those that Lithuania itself creates. Because we have these dangers in common, we should discuss them as a single complex.

Everybody understands perfectly well that today we would complicate things if we spoke merely of the security of Scandinavia or of Sweden alone, although Sweden has been heretofore neutral and maintains officially, according to parliamentary resolution, that it has no enemies. Sweden is also changing its political course, moving away from its traditional centuries-old policy of neutrality towards the European community. There are many new economic obligations and interests, and they are followed by certain strategic interests. The situation of Yugoslavia has demonstrated that the European Community has clearcut regulations and seeks to reduce conflicts, i.e., it has strategic interests which it will try to accomplish. The mechanism for their realization is also becoming apparent—the Western European Union.

Thus, the states that are deepening their relations with the West must start thinking what the ties will be in the sphere of security policy. Of course, this problem also arises for Lithuania. We succeeded in drawing attention to the urgency of the question of the Baltic States and in proving that a common model for a system of security is needed today. The best known Scandinavian experts in the areas of civil defense and security took part in the conference.

[LIETUVOS AIDAS] Will some sort of an alliance embracing the three Baltic countries and Scandinavia be created?

[Butkevicius] It is still too early to speak of such an alliance or association; so far we only have states with very similar interests. These are countries without the weapons of mass destruction and with active mechanisms of international control: countries that apply confidence-building measures.

Norway presented a similar picture. There I was received by the Minister of Defense J. J. Holst. This was the first time I had a talk with a minister of defense of a country belonging to the NATO bloc. Prior to our meeting he consulted his Government which gave its consent to our dialogue. The minister and I discussed how the Baltic countries and Lithuania could best integrate themselves into the Western European structures—how this can be done peacefully, without a major conflict with the East, and how bloodshed can be avoided.

[LIETUVOS AIDAS] Did the Norwegian prime minister predict when we could really start living in Europe?

[Butkevicius] There is no doubt that everybody sees us in Western Europe. The only question is—when? They feel a great anxiety about the events in the Soviet Union itself, what influence they will have on Lithuania's westward movement, and whether it will be suddenly stopped.

[LIETUVOS AIDAS] Evidently you have made some agreements with similar agencies in Scandinavia?

[Butkevicius] Yes, we have agreed to exchange information and to meet regularly. This shows that the world sees us differently from a month or two ago. The continuous events in the border area and the escalation of actions of political terror in Lithuania arouse more than sympathy. The foreign countries are beginning to think about how to resolve our problem. We plan to organize an international conference in November in Vilnius. One of its main themes will be the configuration of Lithuania's relations with the USSR and the Western states. We are unable to perceive all the aspects and nuances by ourselves; we need the opinion of the western experts.

We have established contacts with many strategic research institutes and with individuals who do such work in the West. Now we shall be able to obtain a comprehensive analysis. We expect the visit of specialists from Scandinavia, the USA and the Western European States. We want to hear the opinions of all the states that influence world events. By the way, USSR experts will also take part.

Description of Russian Reserve Officer Retraining Center

92UM0135A Moscow ROSSIYSKAYA GAZETA
in Russian 12 Nov 91 p 7

[Interview with Coordinating Council Member, Admission Commission Chairman, Doctor of Historical Sciences Ivan Yakovlevich Vyrodov by ROSSIYSKAYA GAZETA Correspondent Irina Lobanovskaya, under the rubric: "A Matter for a Retiree": "The Center Is Coming to Their Assistance"]

[Text] At the end of October, the President of Russia signed an order on the establishment of the All-Russian Reserve Officer Retraining Center. Our correspondent met with Coordinating Council Member, Admission Commission Chairman, Doctor of Historical Sciences Ivan Yakovlevich Vyrodov.

[Lobanovskaya] Ivan Yakovlevich, to whom does the idea of establishing the All-Russian Center belong?

[Vyrodov] This idea originated with Boris Nikolayevich Yeltsin himself. He expressed this idea during the presidential pre-election campaign and tasked his representative Vladimir Anatolyevich Mikhaylov to carry it out.

[Lobanovskaya] Tell me about the new Center, its goals and tasks.

[Vyrodov] In our current complicated situation when the reduction of the army is occurring, the question is raised in a very timely manner about the utilization of the strength and knowledge of very young officers who are being released into the reserve. They need our concern because they often find it very difficult to adjust to their unusual situation as retirees and they do not understand why they have suddenly found themselves unemployed and not needed by anyone.

The new Center can and must assist in the resolution of several problems: the provision of social protection of officers who are retiring, reduction of the growth of the unemployment that already threatens us, and the utilization of the intellectual potential of officers who have higher educations.

A great deal of work has been conducted to create the Center. Boris Nikolayevich Yeltsin himself and Mossoviet Deputy, Chairman of our Coordinating Committee, and Military Expert Vladimir Mikhaylov have done quite a bit. USSR Minister of Defense Yevgeniy Shaposhnikov, Former Premier Ivan Silayev, MATI [Moscow Aviation Technological Institute] Rector, Academician Boris Mitin, and MATI Pro-Rector for Foreign Economic Activities, Corresponding Member of the Russian Academy of Technical Sciences Nil Beklemishev have rendered assistance.

Formulation of the decision to establish the Center was difficult. The bureaucracy which is still quite large in the Russian Council of Ministers and in the Mossoviet, rendered their traditional resistance. V. Mikhaylov was

compelled to appeal to the President of Russia himself for assistance. This is also explained by the fact that the All-Russian Center was established by the direct order of the President of the RSFSR "On Retraining of Officers Who Have Been Released into the Reserve as a Result of Armed Forces Reductions" which specifically stipulated: "For social protection of officers who have been released into the reserve as a result of Armed Forces reductions and to render state support them during retraining in specialities needed under conditions of a market economy and for job placement;

1. Adopt the RSFSR Council of Ministers proposal on the establishment of the All-Russian Center for retraining officers who have been released into the reserve.

2. Form a Coordinating Council composed in accordance with the attachment to organize the operation of the center.

3. The RSFSR Council of Ministers will examine the issues of the Coordinating Council's work and the activities of the All-Russian Center for retraining officers who have been released into the reserve and make the required decisions within a month."

The center began its work on October 28.

[Lobanovskaya] How was it organized?

[Vyrodov] Studies are designed to last four months. Forty people have been enrolled in the first group through competitive selection and it has now begun its studies, a hundred more students will already be in the second group in April, and then thousands in the Center's branches. As you can see, we want our work to develop rapidly and we want to improve it.

The Russian Economics Academy imeni G.V. Plekhanov has provided facilities for classes and for teachers and the literature needed by the students.

The Director of another Center—training managers at this academy—is Doctor of Economic Sciences Vyacheslav Gorlopanov and Director of the "Management" Program, Candidate of Economic Sciences Vyacheslav Zolotov have rendered us special assistance during the organization of our Center. And we are also very grateful.

Our students' first impressions make us happy: they all note the high level and real professionalism of the academy's teachers.

I need to say that the future businessmen will study at the Reserve Officer Retraining Center free of charge and they only need to pay for the foreign language courses the study of which our programs require. Our programs also include course on the market economy, the problems of privatization, finances and credit, conversion of defense enterprises, bookkeeping, marketing, management, foreign economic activity, computer training (the Academy imeni F. Dzerzhinskiy has provided facilities for it).

Right now only Moscow residents are studying at the center—there are no dormitories for residents of other cities. But in the future (in the near future, we hope), branches will be formed throughout the entire Union and possibly even in Germany. Leonid Gulyev's group is involved with the issues of their organization.

The Coordinating Council is the staff that manages the organ of the All-Russian Center. The 11-man Coordinating Council was formed by an order of RSFSR President B.N. Yeltsin. They include prominent scholars (academicians, corresponding-members, doctors and candidates of sciences), heads of major firms, economists, Soviet deputies, and military experts.

The Center will find jobs for its future graduates-managers after they defend their diplomas and the Center already has requests today. So there is interest in our work.

[Lobanovskaya] But why do the students need a foreign language?

[Vyrodov] Some students already know 2-3 foreign languages well. The others have studied a certain language at their VUZ's [higher educational institutions]—they will only deepen their language knowledge at our courses. Later, as you know, the modern economy has been integrated. Joint ventures will play an important role in the national economy. Furthermore, our students will undergo on-the-job training in Germany after the completion of their studies.

[Lobanovskaya] How is the Center being financed? This is not a simple problem in our times...

[Vyrodov] Yes, this is so. For now sponsors are assisting us and fortunately there are many of them. Our bank account is number 700,808 at Gagarin Commercial Bank, MFO 201315. In the future, we must begin our own studies and research and we are operating on a cost-accounting basis.

Specifically, each student signs a contract with the Center according to which "if the parties agree, he can participate in the commercial activities in the interests of 'Predpriyatiye' [Enterprise]."

We do not pay students stipends and they have to live somehow during the four months of studies...

[Lobanovskaya] What do you need to do to enroll at the Center?

[Vyrodov] For people who have previously been released into the reserve—an assignment and a character reference from the military commissariat, and for those people who are being released right now—an assignment and a character reference from the unit commander and, for those working—from their work place. A copy of a higher education diploma is also required. The age category is restricted to 45 years of age.

[Lobanovskaya] And then?

[Vyrodov] Then—an interview, testing, and the credentials committee. The rest depends on the student himself. The Center is attempting to do everything it can so that future managers receive the most solid theoretical and practical knowledge base. And so that they become the country's gold reserve and are used exclusively as intended and for the benefit of all of us.

Ukrainian Officers' Union Head Interviewed

92UN0254C Lvov ZA VILNU UKRAYINU
in Ukrainian 20 Sep 91 p 2

[Interview with Lieutenant Andriy Haysynskyy, deputy chairman of the Union of Ukrainian Officers, by Mariya Bazelyuk; place and date not given; first paragraph is introduction: "Andriy Haysynskyy: We Swear Our Loyalty to the Homeland"]

[Text] The guarantee of the independence of the Ukraine is its own armed forces. Our conversation with Lieutenant Andriy Haysynskyy, deputy chairman of the Union of Ukrainian Officers, is about this.

[Bazelyuk] The statute of the Union of Ukrainian Officers [SOU] stipulates the creation of the appropriate territorial organizations. What is being done in this direction in Lvov?

[Haysynskyy] In accordance with the rulings of a congress of Ukrainian officers and of the executive committee of the SOU, a structure of the SOU is being created in Lvov. An organizational committee is functioning which consists of servicemen and representatives of the community made up of reserve officers. On 22 September there will be a constituent conference of the Lvov SOU.

[Bazelyuk] What kind of actions has it taken with regard to the creation of a Ukrainian national army?

[Haysynskyy] Even today officers of the SOU, and among them Colonel Vitaliy Lazorkin, a Lvov resident, are taking part in the drafting of laws on national security. A concept, law, and regulations on a national guard are in the final stage. They are discussing a law on active military service, on an Armed Forces of the Ukraine, on the defense of the Ukraine, on the status of servicemen, on their social and legal protections, etc.

In Lvov the local office of the SOU together with the Lvov Public Committee for Renewal of a Ukrainian National Army has created a temporary headquarters for the formation of the Ukrainian Republican Guard, which is conducting a preliminary registration of candidates.

[Bazelyuk] Is there a material base with which to conduct measures with regard to the creation of a Ukrainian national army?

[Haysynskyy] The SOU has only come into existence recently, but it already has some assets. In particular, the Rovno trading house, "Eliksyr," has transferred 100,000 rubles to us and has promised to support us in the future.

I expect that new sponsors will appear before long, because after all the defense of an independent state is an affair of the honor of each of its citizens.

[Bazelyuk] What are the first-priority plans of the SOU?

[Haysynskyy] We wish to propose that the oblast soviet draft measures of social policy with regard to military personnel.

[Bazelyuk] Do you have concrete proposals?

[Haysynskyy] It is a question of the best way to provide servicemen with housing, taking into account the real capabilities of the oblast of course.

Second, taking into consideration the wishes of the officers, we will go out to the city and oblast soviets with the question of opening a city officers' club which would not be under the jurisdiction of the military authorities and where officers could gather to discuss their problems and relax. There are also other ideas which need to be substantiated by economists.

[Bazelyuk] According to which model, in your opinion, should a Ukrainian national army be created?

[Haysynskyy] I believe it should be a territorial army, which follows from historical experience. For example, the forces of the Ukrainian Galician Army [UHA] were maintained on this principle, which ensured high discipline among the fighters, who were linked to their native lands not by words but by ties of blood. Second, the UHA took national psychology into account very well. For example, subunits manned by natives of Hutsulia were sent to especially important portions of a battle. Even today Hutsuls have preserved a wonderful capacity for self-sacrifice. They are prepared to die for an idea, and in terms of invincibility one can even compare them to the Cossacks. Thus a Ukrainian national army must have strong foundations of psychological service and undoubtedly high professionalism, which can be obtained by curtailing the army and increasing its material base and morale foundations. In my opinion, one can reduce districts to armies, armies to divisions, and divisions to brigades. In this manner the number of generals would be no greater than 25. There would be a commander of the armed forces, his six deputy commanders, three army commanders, their first deputy commanders and chiefs of staff, and nine division commanders. This was discussed at a meeting of the executive committee of the SOU, and I am in full agreement with this way of thinking.

[Bazelyuk] The Ukrainian Supreme Soviet has adopted a decree putting those forces located in the Ukraine under its own jurisdiction. What should the further steps of the Ukrainian parliament be?

[Haysynskyy] Because of its many centuries of slavery, the Ukraine does not have experience in the creation of a state. From history we know that the UNR [Ukrainian National Republic], Transcarpathian Ruthenia, and the

ZUNR [West Ukrainian National Republic] were overthrown precisely because they did not solve the main problem—they had not created their own military. Therefore today, in my opinion, the Supreme Soviet must first of all adopt a ruling on the creation of state commissions which would work to register servicemen who meet the legal requirements and wish to be citizens of the Ukraine. Then it is necessary to approve the text of a military oath of the Ukrainian state and adopt a decree applying it to the troops. Of course the Union oath must no longer apply. In my opinion the ethnic origin of a serviceman should have no significance. Of first importance should be his patriotism and loyalty to the Ukraine. Quite understandably, these rulings will give rise to a series of others which will provide for the return of citizens of the Ukraine who are servicemen to their Homeland and of citizens of other republics to their lands.

There should be a Supreme Soviet decree on the autumn 1991 conscription of citizens of the Ukraine only into military units stationed in the Ukraine.

[Bazelyuk] Andriy, you, as a regular officer, were one of the first to proclaim your desire to serve the people of the Ukraine. Tell us a little about yourself.

[Haysynskyy] I was born in Kharkov, where my parents presently live as well. I graduated from the Lvov higher political service school. I served two years in the central group of forces in Czechoslovakia, and now I am stationed in Lvov under the jurisdiction of the commander of the Carpathian Military District. I teach the first course of the historical department of Lvov University, and I am engaged in scientific work. In particular, I study the traditions and ideological service of the Ukrainian military formations at the beginning of the 20th century. I am married to a resident of Lvov. I have a son.

I believe that each citizen has an obligation and responsibility first and foremost to his Homeland.

'Collective' Defense Would Mean Russian Troops in Ukraine

92UM0124A Kiev KOZA in Russian 23 Oct 91 p 3

[Article by N. Porovskiy, people's deputy of the Ukraine, under the rubric "Point of View": "Do We Need a 'Russian' Army?"]

[Text] *The USSR Armed Forces is the last structure that is keeping the rotten organism of the Soviet empire from final disintegration. All other all-Union state structures—banking, financial, etc.—were usurped de facto by Russia after the coup was defeated. Although Burbulis' doctrine that the RSFSR [Russian Soviet Federated Socialist Republic] is the sole legal successor to the Union has not been approved as a political decision, it is nevertheless being successfully implemented in practice. Unless the Ukrainian Supreme Soviet now shows decisiveness and political farsightedness in the matter of creating a Ukrainian Armed Forces, a situation may develop in which the*

Armed Forces of the former USSR, created through the efforts of all the republics, will end up subordinated to Russia—as has already happened to the gold supply, the USSR diamond and hard currency reserves, the strategic supply, and so on.

The concept of the defense and organizational development of the Armed Forces, approved by the Ukrainian parliament, is based on the principle of having two levels of troops on the republic's territory: the Ukraine Armed Forces and collective strategic defense formations. A logical question: Who will the strategic defense troops be subordinate to? The renewed center? The USSR president? But it is absolutely obvious by now that the republics of the former Union will not agree to be subordinated to the center, no matter how super-renewed it may be; as for the USSR president (or commander of the strategic defense forces), without real levers of power and for influencing the republics' economies, he simply will not be able to solve the thousands of problems related to the functioning and supply of an extremely complex mechanism of collective Armed Forces for strategic defense. In short, if we remove the camouflage of the word "collective," we can foresee that in fact it will be Russian forces of strategic defense, equipped with nuclear arms and stationed on the territory of the Ukraine.

What can this mean for the future Ukrainian State? Will it not make us hostages to the nuclear arms and troops of a foreign state, the withdrawal of which will require the same kind of hard battle that Hungary, Czechoslovakia, Poland, and other countries of the so-called socialist community have fought for decades?

On the other hand, there emerges a host of problems related to the subordination and interrelations of the collective strategic defense units with the Ukrainian Armed Forces command. Naturally, a dual subordination of the collective defense units will not result in any good, since a military man must have one commander, not two, especially when it involves nuclear weapons.

Otherwise, the Ukraine will not only have on its territory the nuclear forces of Russia, but will also finance them as "collective," that is, pay tens of billions of rubles to arm and support the units of a foreign army under the name of collective strategic defense units.

All of the above leads to one conclusion: If the Ukraine is aiming not at declarative independence that exists only on paper, but rather at the kind that any state in the world has, it does not make sense to talk about "common," collective strategic forces.

The Ukrainian Armed Forces should, without exception, incorporate all military units located on its territory, including strategic defense troops equipped with nuclear arms, and the Black Sea Fleet.

On an equal footing with other powers, the Ukraine will participate in the realization of all treaties and agreements regarding the non-use of nuclear arms and disarmaments, but at this point, when a neighbors' possession of nuclear arms may be used to apply pressure and as a threat to the realization of Ukrainian state independence, we should not unilaterally disarm.

The Ukrainian Ministry of Defense should immediately ask Soviet Army members to decide in the near future on the matter of receiving the Ukrainian state citizenship, in accordance with the adopted law on citizenship. Thus, those servicemen who receive Ukrainian citizenship will be automatically relieved of the oath of allegiance (or other) to a foreign state—the USSR, and will be able to take an oath of allegiance to the Ukrainian state. This opportunity is available to all servicemen, regardless of nationality, knowledge of the Ukrainian language, or faith.

Unfortunately, there are some chauvinistic officers in the Soviet Army who do not want this development. Following the principle of imperial ideology—divide and rule—officers and political officers of the Kiev Military District have come up with the idea of creating a provocative pro-imperial officers organization, an alternative to the Union of Ukrainian Officers. Sensing the growing threat to their super-pampered position, these knights of “the one and indivisible” want to create an organization that would serve them as a bridge to, and a guarantee of, receiving new high-ranking positions.

The issue of creating a Ukrainian Army is a cornerstone of the creation of an independent state. However, an army cannot exist without its ideology—the spiritual substance that would unite all servicemen. An army without ideology amounts to military units of mercenaries. The unifying ideological substance of the riflemen of the Ukrainian Galician Army, the Army of the Ukrainian People's Republic, and the Ukrainian Insurgent Army [UPA] was the idea of Ukrainian state independence, service to their people; the motto of the Ukrainian Insurgent Army, “Freedom to people, freedom to man,” became the ultimate expression of this idea.

This is where the roots on which more than one generation of fighters for the freedom of the Ukraine were raised, and from which the ideology of a modern Ukrainian Army should grow. The motto of the ideology: Back to the roots of Ukrainian patriotism! Its substance is that it stems from our thousands-years old history, from the popular milieu. A soldier of the Ukrainian Army, whose outlook is based on the principles of this ideology, should become a focus of the best features of all past generations of Ukrainian warriors, from old Slavonic hero warriors to knights of the Ukrainian Insurgent Army; should be the center point of high patriotism and heroism. The Ukrainian Army that is being created now will only be able to become a true military force when it begins to stand guard over the people and the state of the Ukraine, when in its depths all the volunteer cadres of

the Soviet Army, disoriented by the Soviet reality and communist propaganda, are forged into highly professional, disciplined warriors loyal to the Ukrainian state.

History has a habit of repeating itself. The Ukrainian Government faces today the same tasks the Central Rada and the Directoria faced. Therefore, at the start of deliberations on the Ukraine Armed Forces, the Ukrainian parliament should be reminded of one document from that time—the resolution of the military council of the territory of Kiev and its vicinities: “To immediately start organizing our own national army as our own powerful military force, without which gaining complete freedom for the Ukraine is unthinkable.”

Ukraine Army to Be Formed in 5-6 Years

92UM0123A Moscow IZVESTIYA in Russian 6 Nov 91
Union Edition p 2

[TASS report: “Ye. Marchuk: A Ukrainian Army Will Be Formed in 5-6 Years”]

[Text] The Ukrainian state minister for national defense and states of emergency, Marchuk, visiting Switzerland as part of a republic parliamentary delegation, has stated at a news conference in Geneva that the Ukraine is not laying claim to the strategic forces and their nuclear component located on its territory, and that they will henceforth be under the control of a unified center, while as far as the Ukraine is concerned, all conditions will be guaranteed for their normal existence.

He noted that it is proposed to develop national armed forces in the Ukraine in three stages that will take five or six years. This will include the creation of the necessary combat base, and talks with the USSR Ministry of Defense in order to draw up and sign appropriate agreements. Talks will also be necessary with the neighboring republics of Russia, Belorussia, and Moldova.

Touching on the fate of the Black Sea Fleet, the minister said that its strategic forces and all its systems will remain under the control of the center. Moreover, the Ukraine lays no claim to the entire Black Sea Fleet since it is based not just on its territory. But as a sea power it must have its own defensive naval forces.

Marchuk pointed out that the Ukraine will fully insure its participation in the financing and material-technical support for strategic armed forces deployed on its territory and will guarantee a draft of its own personnel into the appropriate military contingent and funding and material-technical support for the border, internal, and railroad troops transferred to its jurisdiction, and from 1992 this will be fully insured by the Ukraine.

Ukrainian Delegation in CSFR to Study Army Organization

LD0811205291 Moscow Russian Television Network
in Russian 1800 GMT 8 Nov 91

[From the Vesti newscast]

[Text] A delegation of the Ukraine Parliament is in Czechoslovakia now to study the experience necessary for setting up its own army. Dudinets, head of the delegation, clarified the republic's position regarding nuclear weapons. The Ukraine will protest against the displacement of nuclear weapons from its territory. However, it is true that the long-term aim of the Ukraine is to destroy these weapons.

New Officers Groups Organize In Ukraine

92UM0172A Moscow KRASNAYA ZVEZDA in Russian
26 Nov 91 p 2

[Unattributed article: "To Prevent Injustice and a 'Witch Hunt'—A Who's Who of Officers' Public Organizations"]

[Text] Servicemen's aspiration to protect themselves and their families at a time of the establishment of market relations, the creation of sovereign states, and reductions in the Armed Forces is apparent today. And no one is surprised any longer by the proliferation of public organizations in the army and navy that are focusing their attention on issues of social and legal protection in particular. They are being created with such speed that it is sometimes difficult to follow their activities and purposes. Several public organizations have also emerged in the Ukraine of late. Much has already been said about the Ukrainian Officers Union. What are the other organizations?

The Independent Officers Association

At the initiative of officers in the army, the navy, and units of the Ministry of Internal Affairs troops, the founding conference of the Independent Officers Association was held in late October of this year in Vinnitsa. It was attended by 269 delegates from military units and institutions in 67 Ukrainian cities. It was decided at the conference that the organization is intended to protect servicemen's social interests and will be outside any political parties or movements. The chief principle guiding the association's activities is noninterference in the army leadership's command functions and an effort to resolve all issues solely within the framework of Ukrainian legislation in effect.

The organization's basic aims were defined as well. They are, first and foremost, to protect the social and legal interests of servicemen, to raise urgent issues before official structures, to provide assistance to families, and to instill in officers lofty notions of the soldier's honor

and duty to the motherland and to the Ukrainian people in ensuring their reliable defense.

In order that officers do not confuse the newly created organization with others (which is indeed hard these days), the coordinating committee also defined the differences between the association and, say, the Ukrainian Officers' Union. True, it is pointed out that the association proposes cooperation with the union and, should it be depoliticized, does not rule out the possibility of the two organizations' merger.

The Kiev Constructive Union

The editors learned of the creation of this organization from its cochairman, Major V. Lartsev. The union sees its chief task as opposing efforts to mount in military units in the Ukraine the "witch hunt" that some people have been contemplating in the wake of the events of August. The union's members feel that any purge, no matter what good intentions it may pursue, will inevitably exacerbate the already strained relations in the Armed Forces.

In order to enhance the prestige of officers' service in the Ukraine, the new public organization proposes to create for them and their families social and consumer-service conditions that are better than those in other regions and republics.

The Constructive Union for the social protection of servicemen, retired servicemen, and members of their families supports the position of the Ukrainian Defense Minister and of those democratic forces in the republic that believe that the process of nationalization by the Ukraine of the property of the Kiev, Carpathian, and Odessa Military Districts and the Black Sea Fleet should be carried out in a carefully considered fashion, via negotiation, and without detriment to the interests of any category of servicemen.

The Constructive Union distances itself from the Ukrainian Officers Union and believes that if the functions of a military party—and not of a public organization with a trade-union and social orientation—continue to dominate the latter's activities, this could lead to a Yugoslav scenario of events.

In supporting the creation of Ukrainian armed forces, the Constructive Union does so, as stated, not for the sake of high-ranking posts, but in order to ensure external and internal political stability in the republic during a difficult period.

Disciplinary Battalion Inmates Interviewed

92UM0145A Moscow ARGUMENTY I FAKTY
in Russian No 45 Nov 91 p 5

[Article by ARGUMENTY I FAKTY correspondent V. Perushkin: "'The Fuzz' and 'Con Artists' in the Disciplinary Battalion"]

[Text] At the present time there are 21 disciplinary units located on the territory of the country and about 17,000 military servicemen inmates are housed there.

Ethnic strife, mistreatment of military personnel, evasion of service—this is far from a complete list of the crimes which have swept through the army. The expediency of disciplinary battalions is being called into question more and more frequently. Our correspondent V. Perushkin went to one of these units.

Background Information

1986-1988—a tendency toward reduction of crime in the army by 36 percent observed;

1989—growth of crime by 12.8 percent as compared to 1988;

1990—increase in crime by another 33.9 percent.

Up to 1984 less than 30 percent of the people convicted of military crimes were sent to disciplinary battalions.

After 1988 this indicator rose to 50 percent.

After 1985 the maximum period spent in disciplinary battalions increased from two to three years.

Individuals sent to the disciplinary battalion for military crimes return home with a clean record. It turns out that the period of punishment is counted as "honorable military service" on the part of a citizen of the country who is called to defend his homeland.

In addition to the inmates, men on active duty serve here. They are noncommissioned officers who have direct contact with the legal offenders and a guard company which guards the territory of the disciplinary battalion.

The officer instructors, noncommissioned officers, and guard company in the disciplinary battalion are called "the fuzz." The servicemen inmates are called "scoundrels."

Added to army mistreatment of personnel here are prison procedures that come from investigative detention facilities. The entire contingent of inmates both in disciplinary battalions and in the zone is divided into four categories.

THE DISCIPLINARY BATTALION

1. Underworld members
2. Underworld recruits
3. "Devils"
4. "The down and out," "roosters"

THE ZONE

1. The authorities, "top dogs," shirkers
2. "Peasant boys"
3. "Lackeys," "Gofers"
4. "The down and out," "roosters"

Among the officer instructors in the disciplinary battalion there are artillery specialists, tank drivers, communications specialists, and truck drivers, but there are no professional educators who know the specific nature of work with inmates.

Company commander Captain V. Yerulin:

"Psychologically, things are much more difficult here than in Afghanistan. The officers' rights are not protected, the old methods of influencing the inmates have ceased to work, and they do not have their own technical base.

Physician from the disciplinary battalion (he asked that his name not be given):

I am against disciplinary battalions. The people here cannot be called soldiers. Since they have committed crimes they should be in jail.

It is difficult to determine the difference between the zone and the disciplinary battalion. In both places there are several layers of obstacles, guards in the towers, and guards with dogs walking the perimeter.

Each month the convicted military serviceman is permitted one visit (no more than four hours) and one parcel, and he is forbidden to have money in his hands or to "use the store."

But in the high security zone each month they are permitted three visits (two short ones and one long one, up to four hours) and they can "use the store."

A. Melnik, Article 244 (mistreatment of military personnel):

"The disciplinary battalion is the same zone, the same life, the same concepts, only it is called a disciplinary battalion.

The list of articles applied to military servicemen is fairly long. The most widespread are mistreatment of military personnel and absence without leave.

After they have received their sentence, many inmates try for an early release. There are various methods of achieving this...

Inmate M.A., Article 244.

"The officers make 'stool pigeons' out of us, informers, so that they will have all their information. If you want to get out early, you inform on your own kind. Not all of them, of course, do that, but some do..."

There are unique methods of education here as well. A military serviceman can be placed in the guard room for his offense.

Inmate A.Z., Article 257 (a) (violation of the rules of alert status):

As soon as I arrived here, the first day, they started to "pay visits." The company commander decided to take a trip—to the guardhouse. There the sergeants began to do whatever they wished: Get me this, do that. I refused. They twisted my arms and handcuffed me to the door. An hour later they came back and started to torment me with the dog...

No matter how hard you try, you cannot find punishments like this in the disciplinary regulations. But in the disciplinary battalion the reality is that they do whatever they wish—hit you in the ribs, frighten you with the dogs, and turn you into stool pigeons. Thus the "fuzz" and the "scoundrels" toil side by side in the army, tormenting and hating one another. And when it gets to be too much to bear, you can turn to the priest since he is one of you, one of the inmates...

Father Gennadiy was convicted of evading service for three years:

Because I did not finish my religious training I ended up in the army. I did not get along with the leaders and abandoned my military unit. I was at home for eight months, got married, and took the holy orders. When I found out they were looking for me I came to the military commissariat of my own accord. There they told me to go to the Moscow military procuracy. That is how I ended up in the disciplinary battalion...

So there they are together in the same place—those who could not stand the insults and fled from the army and those who insulted those who fled. Those who became legal violators by accident, and those for whom crime had become a way of life. And the combat officers in the role of educators play the role of Makarenko, but not always successfully. And the reason for this lies not with the officers themselves but the legal mechanisms for influencing inmates, which do not work in the disciplinary battalions. Hence the lack of restraint as well.

Criminal-recidivist A. Somov, who has spent a total of 24 years in prison (he is in the regular zone):

I am struck by the malice and hatred that exist not only in the disciplinary battalions but also in the army units. Where do these young people learn to be so cruel to one another? I have been through the zone, beginning when I was young and ending with hard labor, I have seen a lot, but the soldiers' lack of restraint is the worst.

During the war the disciplinary battalions were called something else—penal battalions. They were used to stop up the bloody holes in the front lines. Today the disciplinary battalions themselves are bloody wounds.

This does not mean that they should be abolished immediately. We need to look for more effective forms of operation and detention of inmates in them.

Siberian MD Operation Exposes Drug-Dealing Among Troops

*PM0411105991 Moscow ROSSIYSKAYA GAZETA
in Russian 1 Nov 91 First Edition p 1*

[Unattributed report under the "News" rubric: "Stupefied Sentries"]

[Text] A large batch of drugs, weighing 4.5 kg in total, has been confiscated from several units of the Novosibirsk garrison as a result of an operation carried out by officers of the Siberian Military District KGB Special Department and the Military Prosecutor's Office. It resulted in the detention of five servicemen who had been distributing dangerous substances.

More than 20 soldiers and sergeants from the troops in the district involved in the sale of narcotic substances have already been exposed this year, Major General A. Rodionov, chief of the district's Special Department, revealed. It has emerged that drugs have even penetrated into the disciplinary battalion, where convicts pay up to 180 rubles for a tumblerfull of hashish.

Drugs have even begun to penetrate into subunits on combat alert duty, sentry service, and fulfilling other responsible tasks, something that is provoking particular alarm. Several channels used to transport this bane from the republics of Central Asia and the Transcaucasus have been exposed. Criminal proceedings are being instituted against persons implicated in criminal activity.

Article, Editorial Comment on Pay Issues

*92UM0129A Moscow KRASNAYA ZVEZDA in Russian
13 Nov 91 First edition p 2*

[Article by KRASNAYA ZVEZDA Correspondent P. Altunin: "Salaries Will Be Higher"]

[Text] KRASNAYA ZVEZDA has recently sounded the alarm with regard to Soviet Army and Navy workers and employees who live on the verge of poverty. Urgent measures are needed to rectify the situation.

"We have read your articles and literally idolized them," write the members of the Trade-Union Committee for air base workers and employees headed by V. Kryuchkov, "but obviously our prayers are not reaching God just like our appeals do not reach the Ministry of Defense or the President. In recent years, civilian departments have significantly increased the salaries of their workers and employees. Order no. 250, dated 26 May 1991, has slightly raised salaries and rates only for workers of leading professions at medical institutions, officer's clubs, and for educators in kindergartens and

teachers in schools. They comprise approximately 16 percent of the total number of air base workers and employees. The remainder, factoring in compensation, receive 150-290 rubles. Tell us, today is it possible to live on that money and to feed a family?"

"I would say our name is—a legion. We are employees of the military mission," says N. Zavgorodnev, while responding to our articles. "Our labor requires high skill, initiative, and laboriousness. At times, we solve problems at the level of the enterprise's main specialists and their salaries are 6-10 times higher than ours. We appear to be hurt not just materially, but morally as well.... The first thought is to transfer to other, better paying jobs, but you see, you can say that we have dedicated our entire lives to the cause of our equipment's combat readiness."

Representatives of more and more professions, without which it is difficult to support the normal life of the Armed Forces—telegraphers, military commissariat workers, veterinarians, metalworkers and stokers, send us short letters by telegraph. There is a cry for help in them, but not just that. They do not want the cause to which they devoted years of intense work to suffer.

There really is a legion of workers and employees in the Armed Forces. How many military enterprises do we have where there are just 2-3 officers and the remainder are 200-300 workers and employees? And the ration and clothing depots, the workshops, hospitals and outpatient clinics, all military trade, publishing and printing, the boiler room and the mess hall are operating day and night! Imagine for a minute that all of this has ceased operating and has been frozen in place; the life of the army and navy would simply be paralyzed.

And it is already happening in some places. A colonel we know, the head of a military enterprise, was recently nearly unable to keep the tears from his eyes as he told us, "We have nearly 100 workers and employees. Half of them have left and the others will soon leave. Who will replace them? We must efficiently supply military units with equipment."

The press has already reported that the crews of the Northern Fleet's auxiliary ships are ready to go on strike. The North Sea Fleet's trade-union organization for auxiliary shipborne personnel, search and rescue, and hydrographic services supports the members of the North Sea Fleet. It is not hard to imagine what this means for combatants.

Nearly 100 letters with similar demands have arrived at the editor's office from military commissariat employees: double salaries, do not withhold income tax from it, increase vacations to 30 days in duration, and establish a bonus this year.

I am personally convinced that people are not motivated by feelings of egoism, but by the desire to restore social justice. How can you convince a person who is giving a

wholehearted effort to his work that he is being recompensed according to his labor when he sees that there is a less skilled and less conscientious worker in the neighboring enterprise and maybe he is in a less responsible sector and he does not work at full capacity but he earns 2-3 times more? But even that is not the essence: life has already drawn the poverty line and people have found themselves below that line.

They do not only see injustice in the pay scale. By way of illustration, V. Vasilyev writes: "Despite the fact that we work in Russia, for some reason we have a minimum of R160 that is not subject to income taxes and not R210 as stipulated by Russian law."

Here is one more argument which, for example, was cited in the appeal of Kiev Military District workers and employees to the President and Minister of Defense. These workers have created a coordinating committee to conduct acts of protest against the drastic decrease in their standard of living. Recently, there was a significant pay raise for officers, warrant officers and other categories of military servicemen. But workers and employees who received a pay raise a year or two later than in the national economy have actually not received a raise since 1988.

It goes without saying that officers and warrant officers have greater demands on them and they also bear a great deal of responsibility. But, you see, workers and employees also have a great deal of responsibility and the lack of understanding that has been caused by large salary discrepancies literally resounds in every letter.

Of course, we are an amazingly conscientious, patient and hard-working people and people are still ready "to endure" if necessary as it has always been customary for us to say. But insofar as they, like military servicemen, are not entrepreneurs and they cannot earn as much as they need to support themselves under market economy conditions, the state must be concerned about them. And the sooner the better.

FROM THE EDITOR. When this survey was being prepared for publication, Major-General P. Kuchma, head of the USSR Ministry of Defense Labor and Wages Directorate, told the editorial staff that, in accordance with a USSR Presidential decree, the USSR Minister of Defense had signed Order No. 505, dated 7 November 1991, which provides for an increase in real wage rates and official salaries for workers and employees beginning 1 October 1991 including:

—up to 20 percent for workers (non-military service members) of leading professions at USSR Ministry of Defense medical institutions, rest homes, boarding houses, preventive clinics, tourist centers, military educational institutions, schools, boarding schools, school boarding houses, children's preschool, after-school and cultural enlightenment institutions, theatrical-performance enterprises, sports organizations and archives;

—up to 60 percent for the remaining (non-military service members) workers and, without exception, all workers and employees of USSR Ministry of Defense military units, institutions, military educational institutions, enterprises and organizations deployed on the territory of the Latvian, Lithuanian and Estonian Republics.

It has been determined that USSR Ministry of Defense cost-accounting enterprises, institutions and organizations are applying the legislative acts and decisions of the appropriate republics at their own expense.

A USSR Ministry of Defense order announces a series of Russian normative acts for the leadership with regard to workers and employees of USSR Ministry of Defense military units, institutions, military educational institutions, enterprises and organizations deployed on the territory of the RSFSR that prescribes minimum rates for pay and allowances for temporary inability to work, a shorter workday, and an increase of the minimum annual vacation length to 24 workdays. Additional benefits and compensation, that have been stipulated by the RSFSR government for workers of enterprises, organizations and institutions that are located in the regions of the Extreme North and localities of a similar nature, will be extended to army and navy workers and employees.

The USSR Minister of Defense has tasked military districts commanders to disseminate to the troops via their orders legislative acts and decisions of the republics' organs of power on additional, in contrast to all-union legislation, benefits and compensation stipulated for individuals working and residing on republic territory. The indicated decisions are being introduced within the limits of funds that have been allocated for salaries.

The USSR Minister of Defense order will be sent to the troops in the near future. To ensure its rapid realization, the USSR Minister of Defense has sent a telegram to the troops and to the fleets with the requirement to ensure payment of salaries for November 1991, while proceeding from the new salaries and rates of pay with a corresponding recalculation for October.

We hope that the adopted measures will ease social tension at workers and military collectives.

Interview With New Volga-Urals MD Commander
92UM0149A Moscow KRASNAYA ZVEZDA in Russian
20 Nov 91 First edition p 2

[Interview with Colonel-General A.I. Sergeyev, commander of the Volga-Urals Military District, by Lieutenant-Colonel O. Bedula, KRASNAYA ZVEZDA correspondent: "Colonel-General A. Sergeyev: We Will Adjust the Plans Ourselves"]

[Text] Immediately after Anatoliy Ipatovich Sergeyev was introduced as the commander of the Volga-Urals Military

District (KRASNAYA ZVEZDA, 5 September), our correspondent attempted to interview him. "I need to get my bearings," Anatoliy Ipatovich told us at that time. Now, two months later, the commander answers questions posed by our correspondent.

[Bedula] Anatoliy Ipatovich, two months ago, as I recall, you said that you were not prepared to meet the press, since you had not visited every unit, had not yet familiarized yourself with the problems and concerns of the garrisons....

[Sergeyev] I must honestly admit that even now I have not learned everything. Our district is the largest in the Armed Forces of the USSR. It is spread over 10 Russian oblasts and seven republics, over various geographic latitudes and climatic zones. And in almost every unit I encountered the most diverse problems: economic, personnel, ecological.... I know one thing for certain, however: that it is not easy for the troops to engage in what they were actually intended for.

[Bedula] Do you have a plan for resolving these problems?

[Sergeyev] Yes, and it is already being implemented. First of all, we have begun a comprehensive evaluation of the professional qualities of every officer and warrant officer. By decision of the military council comprehensive district command and control groups will inspect also all of the basic combat units. Only after that will we undertake profound reforms in the organization of the training process.

We shall simultaneously strive to implement the old but good rule that all the army structures operate in the interest of the combat training. Here is an example. In one of the units our construction workers have fulfilled the 10-month housing construction plan by 101%, and the rear service specialists have laid in vegetables for the winter. This, of course, means that in addition to everything else the commander of that tank unit can focus on improving his own skills and the training of subordinates. The officers no longer have to worry about where their families will live or how to fill up the regimental vegetable storage facilities. This unit no longer has to make a Herculean effort to organize the training. And a combat training situation which has been given its lawful priority, as we know, is receptive to reform.

[Bedula] Incidentally, a year ago KRASNAYA ZVEZDA stated that the district combat training directorate had begun to adopt effective methods of training cadets in training subunits. Could you tell us something about specific results.

[Sergeyev] The results are good. Right now, however, it is important for the innovative ideas to undergo practical testing and be adopted in the forces as rapidly as possible. For example, a fundamentally new method of training our drivers has been disseminated within the absolute minimum period of time. The company drivers master a six-hour program in 40 minutes. They train on

the actual equipment, using radios. The postage-stamp training station, 200X300 meters, has all the essential driver training elements. The system has a lot of advantages, saving fuel, engine life and training time. Space at the training center is used more efficiently. Most important, however, the training level of the drivers has been raised an order above the previous level. We are now introducing this method for training the mechanic-drivers of all tracked vehicles.

We shall stress the use of comprehensive simulators in the fire training. I recently learned that the Academy of Armored Troops has designed a universal simulator for training gunner-operators and combat vehicle commanders. Its advantage is that the trainee can be allowed to fire the organic weapons following short practice drills. I hope that the command element of the academy, my alma mater, will meet us halfway and we will be able to adopt this simulator in our training process.

With respect to the NCOs, they can and must relieve the officers and take over more than 30% of the time allocated for the training of the soldiers. With the stipulation that the NCOs are well trained, of course.

[Bedula] We know that in recent years the performance of guard duty has become a heavy burden on the troops. Nor is the amount of work involving details being reduced. In some cases the subunits have not gotten around to the combat training until just prior to the end-of-training evaluation....

[Sergeyev] You will probably be surprised to learn that next year we shall be participating not only in the harvest but also in the planting of the crops. I have already requested permission from the General Staff to conduct the main operational activities in the interims between agriculture seasons. The entire training program will have to be intensified. What can we do, when we are entirely dependent upon the nation's economic situation?

Now, about guard duty. Yes, it involves thousands and thousands of men in the district. Within the immediate future we are going to begin introducing technical means of guarding facilities. At certain garrisons we shall combine the pools and the guard details.

[Bedula] Will this solve the problem in the current situation? A large recruitment shortfall is being predicted, after all.

[Sergeyev] I can speak for the Volga-Urals region. I have met with all the republic and oblast leaders and can firmly state that we shall fill the General Staff's request entirely. The fact that the district will get only slightly more than 2% of this recruitment is another matter. This will create certain difficulties. We can consider one of the impending problems solved, however. The decision has been made, in agreement with the General Staff, that all draftees with families will serve within the district and near their homes. The state will save money on

unavoidable trips home by the soldiers. This is also better for us. Today the married soldier serves better, the nearer he is to home.

[Bedula] The combat readiness today is determined to a considerable degree by the fate of yesterday's political workers. There are several thousand in the district. What awaits them?

[Sergeyev] We shall pension off with honor those who have served out their terms. The others will undergo re-certification and be given new assignments coordinated with the officers' assemblies. And not just as assistant commanders. Courses have been set up at the former Ulyanovsk Tank Command School for retraining the officers-and-political workers. Many of the younger officers will become platoon commanders or assistant battalion chiefs of staff and assume other positions at the company and battalion levels.

[Bedula] Everything you have described will no doubt require an increase in the manning tables of the command and control structures or force us to organize the work of the personnel in a fundamentally new way.

[Sergeyev] A second factor should go into play here. We are on the threshold of extensive computerization of troop command and control. In the immediate future we can relieve officers at the operational level of the mechanical accounting, calculating and so forth. Computers will take over these jobs, and the people can concentrate on the creative accomplishment of the tasks involved in the military reform. We shall also adopt a system for managing the demobilization. Incidentally, the designer of the system lives in Penza Oblast. He has promised to help.

[Bedula] We know that the vital functioning of the troops depends to a considerable degree upon their relations with local authorities. At the end of last year and the beginning of this year local authorities in certain republics in the region began claiming the territory of ranges, material and technical facilities, and service buildings. Conflicts have even developed on this basis in some places. How are these relations developing now?

[Sergeyev] Confrontation is a thing of the past. For example, we have already reached agreement with the leaders of Tartarstan with respect to the Kazan Kremlin. We shall turn it over to the city as soon as the republic services involved complete the preparation of equivalent buildings for housing the unit personnel. The situation in one of Kazan's microrayons is more difficult. New construction there has advanced right up to the tank training range, and joint decisions are needed on ecological protection and certain social matters. In the interest of the residents we shall agree to give up use of part of the tank training range. In general, we are resolving all controversial issues with soviets at all levels at the negotiating table.

[Bedula] Especially since 600 deputies in shoulderboards work in the soviets. On the other hand, is this large-scale

participation not detrimental to the combat readiness? There have already been cases in which a battalion or regimental commander has had to decide between conducting a tactical exercise or participating in a session of the oblast soviet.

[Sergeyev] It is a good thing for our officers and warrant officers to be participating in the soviets at all levels. Who, if not the deputy in shoulderboards, is to defend the honor of the army and promote the adoption of intelligent decisions concerning the forces?

We were recently preparing for a session of the military council, when the telephone rang. It was Col A. Kosyakov, a formation commander, reporting that he had a meeting with the electors scheduled that day. He asked what he should do. Kosyakov's deputy attended the session. One can not foresee everything in life, of course, but if there is a conflict between an activity of a city soviet and the military council, for example, or a trip to the field and state work for the deputy in the shoulderboards, we will adjust the plans ourselves.

[Bedula] Anatoliy Ipatovich, I recall that six years ago, in Afghanistan, you were a convinced advocate of incorporating the combat experience into the training of the Armed Forces immediately. Will that experience have a place now, when the military reform is being carried out in the district forces?

[Sergeyev] Absolutely. Particularly with respect to the soldier's individual training and that of the squad, platoon, company and battalion. We have to teach the personnel how to stay alive on the battlefield and what to do in critical situations. In a recent exercise involving live firing I was absolutely shocked at how the sharpshooters, submachine-gunners and machine-gunners advanced. They proceeded as though on parade, firing from the hips. Few of them would have remained alive in a real battle. This means that we have to break down stereotypical ideas in the training. The experience of the "Afghaners" is irreplaceable here.

Anti-Terrorist Group Members Interviewed

LD2411172591 Moscow Russian Television Network
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[Interview with unidentified members of the elite anti-terrorist Alpha group by correspondent Pavel Lukyanchenko; place and date not given; from the "Top Secret" program—recorded]

[Text]

[First unidentified Alpha member] Hello. I am the commander of one of the subunits of the Alpha group.

[Second unidentified Alpha member] I am one of the leaders of the Alpha group.

[Third unidentified Alpha member] I am commander of one of the subunits of the Alpha group. In your first

program, some negative actions of the group were discussed. Well, I think that we will disprove the information you were given, bit by bit, because it has nothing to do with the truth. What caused our outrage, was the suggestion that we were shooting at our own people there.... The thing is, even if the group was there, it was working as part of our army subunits ... and its purpose was only to give the kids some battle training, during the shooting. Many of us were not shooting at all.

[Lukyanchenko] Were you involved in seizing any targets on the territory of Afganistan?

[First member] Well, everybody knows this now, our group stormed Amin's palace, seized it, and its task was, effectively, completed there. On our side, four men were killed. The tactics and strategy of the group mainly consisted of preventing terrorist acts, and ensuring, as much as possible, the life and well-being of those who were taken either as prisoners of war or as hostages, including, of course, our own men.

[Lukyanchenko] Well, but the actual operation of the seizure of Amin's palace, the lawful president of Afghanistan—this was not an anti-terrorist act; in fact, it can be, rather, described as terrorism pure and simple.

[Second member] Well, you can call it so, and any other layman can call it so; however, we had a task which was set by the government, and our immediate leadership, Yuriy Vladimirovich Andropov, on implementing this combat task....

[Third member] No other operations were carried out by the group in Afganistan. What your man was saying, concerning the Persian Gulf, I can say one thing: this is just his morbid imagination. I think the comrade just wanted to appear a superman. [video shows men in blue uniforms and helmets which cover faces running across what appears to be training ground carrying rifles and jumping over ditches]

[Lukyanchenko] Your guys, when they return from the training session ... it often happens that salt comes out on their faces. Is this true?

[First member] Yes, this is true.

[Lukyanchenko] What do you feed them?

[First member] You know, salt not only comes out on their faces, they also find it on their clothing. As for food, well, we are ordinary people. We eat whatever we can get.

[Lukyanchenko] What you can get. You mean they really don't have special rations or something?

[First member] No.

[Lukyanchenko] You are an Alpha group instructor. How does your mens' training differ from that of the army?

[First member] We have special training. We put them under a lot of pressure, with a lot of acrobatic exercises so that whatever situation one finds himself in, he will react in the right way.

[Lukyanchenko] It is said that you have routines that nobody else has, not even any of the Western special groups.

[First member] Yes, we have devised such routines. We have developed them ourselves. We have taken the best of what's available in the Western countries' special groups, and have added our homegrown routines.

[Lukyanchenko] You can't say a bit about what these routines are specifically?

[First member] That's a professional secret.

[Lukyanchenko] I noticed that you have special weapons here. I presume they are intended specially for such groups. What kind of weapons are these?

[Second member] These are special weapons intended to allow us to operate with the least risk of a man being attacked.

[Lukyanchenko] Do you consider Alpha to be the best special group in the world as far as training goes?

[First member] It is extremely difficult to judge.

[Fourth unidentified Alpha member] There have been quite a few operations, mostly in connection with the special purposes of our group, our units—meaning combatting terrorism, along with liberating aircraft and places which had been taken over and where hostages had been seized. For instance, many people have heard about our Tbilisi operation, then there was the freeing of children who had been taken hostage in (?Sarapul). Among our most recent operations there was the liberation of the detention block in Sukhumi last August. That's not a full list but then there are also various kinds of work connected with combatting organized crime.

[Lukyanchenko] It is even said that you have been used for seizing foreign spies.

[Fourth member] Well, we refer to this as particular operational detention action against foreign intelligence agents. Yes, there have been such actions but that is not really our main work. We were brought in just because we have a particular kind of professional training and are able to carry out such operations.

[Lukyanchenko] Tell me, you are an officer, are you not?

[Fourth member] Yes, there are only officers working in our unit. We are servicemen on active service.

[Lukyanchenko] There is talk that you have not been paid for the last two months.

[Fourth member] Well, that is one of life's paradoxes. They say that everyone needs us, that our work is necessary, that similar units exist all over the world and that their upkeep is magnificent. But when it comes to us, how these things are being dealt with in this state of ours at the present time, well, we have not been paid for two months—for October or November. So it might be said that for the moment we are working only for the idea of it.

[Lukyanchenko] Did you serve in Afghanistan?

[Fourth member] Serve as such, no. But all members of our unit did spend some time there during that period, to help in those—what shall we say—extreme conditions. They were on special missions, mostly guarding vital installations, escorting individuals, convoys, and so on.

[Lukyanchenko] Did you have occasion to eliminate ...?

[Fourth member] No, that was work which basically fell to army units, and after all, there was no reason because elimination is a normal combat operation within the context of the tasks that faced the army in that period.

[Lukyanchenko] One hears it said that of late the Alpha group has been being whittled away, literally bought up, that many of the men are leaving because they are being offered big money elsewhere and don't want to carry on working here just for the idea of it. Is that true?

[Fourth member] That's quite right. This is also one of the rather unpleasant situations facing our unit. On the one hand, there are these highly professional and well-trained men who receive a pittance for their work, for the risks they are constantly up against. And, on the other hand, there now exists a whole host of organizations of various kinds—it is fashionable to refer to them now as firms or associations but to be quite honest they are linked to organized crime which need people with that level of training and accordingly offer very big money. As a result, some people are indeed leaving because in elementary terms one has to live, feed one's children, and provide for the material upkeep of one's family. The state is unable to do this as yet.

Chernavin on Nuclear Powered Submarines, Part I
92UM0156A Moscow MORSKOY SBORNIK
in Russian No 8, Aug 91 pp 49-55

[Part 1 of excerpt from book by Admiral of the Fleet V. N. Chernavin with literary record by S. Bystrov under rubric "Deployments and Flights": "Tester"¹]

[Text] The submarine entered the range area, submerged, was trimmed and again came to the surface. Seamen began clambering from the conning tower to her deck one after the other and immediately transferred to a launch. It was clear the crew was leaving the ship, but for what reason?

Only two persons, submarine commander Captain 3rd Rank Gulyayev and engineering department head Senior Lieutenant A. Agapov, remained on the submarine when the launch got under way after taking the last person. The two of them passed through the ship slowly. The submarine commander was greeted by an unaccustomed emptiness of compartments. And although Ivan Ivanovich Gulyayev was engaged in a careful inspection and a check of the equipment's condition, a plaintive anxiety emanated somewhere in the depth of his soul for the ship with which he had fallen in love, with which he had become intimately linked and which now was to undergo an unusual, dangerous test. It probably would have been easier for Gulyayev had he been able to remain in the submarine during the test, but that was out of the question. A genuine, difficult and dangerous combat situation awaited their missile submarine in a few minutes. Large depth charges already had been prepared for her; each was fully sufficient to destroy the ship with a direct hit, as happened during war.

By the way, this happened far from always, as confirmed in particular by the front biography of the S-101, the Northern Fleet Red Banner submarine which became famous for brilliant victories over the enemy and unusually high survivability. Gulyayev knew the history of that ship's war years almost by the days, for the S-101 became the first ship in his biography which he was entrusted to command. Of course, by that time (1953) there were essentially no people remaining in the crew who had gone on combat deployments aboard the S-101, except for machinists' team leader Warrant Officer N. Bukin. But the traditions of one of the best submarines of the Northern Fleet were deeply revered here, and Ivan Ivanovich understood what a very great responsibility it was to command a ship awarded the Order of Red Banner for combat successes.

When Ivan Ivanovich was appointed commander of the S-101 neither he himself nor the command nor his new subordinates could conjecture that specifically this postwar commander of a ship distinguished in the Fleet would become the most well known of all officers who ever commanded the S-101—a wearer of the "Gold Star" medal.

Gulyayev's appointment to the S-101 occurred in a rather unusual way. At that time, still a captain-lieutenant, he was serving as executive officer aboard the submarine S-17. He had given a very good account of himself, had authorization for independent shiphandling, and possessed rather firm skills of independent deployments. CinC Fleet Admiral A. Chabanenko once put to sea aboard the S-17. The officers knew that the commander in chief was a man of great erudition who remembered almost all commanders in the Fleet and who loved to converse with them at every opportunity.

Quite unexpectedly for Gulyayev, the admiral began speaking specifically with him. This conversation began at sea on the transit. First the commander in chief inquired how things were going, about home and about service. He knew how to talk and draw people out to frank, unconstrained conversation. But Gulyayev sensed in the seemingly simple questions a serious check of his knowledge in the most diverse directions. It is not often that an officer essentially has to pass a test given by the commander in chief this way. But the executive officer made no sign and answered with his inherent preciseness, thoroughness and laconicism. Suddenly Admiral Chabanenko said:

"Well, Comrade Gulyayev, we are thinking of appointing you commander of a submarine. How do you view this?"

"Comrade Commander in Chief," the officer began, after a slight pause, "I am accustomed to serve with all eagerness in any position entrusted to me. If entrusted to command a ship, I will try to justify the trust. But I do not know how to request an appointment."

"That's not the point," smiled the admiral, "I simply decided to have a look at you at sea myself."

"The ship or brigade commander probably will say better than I whether I am worthy of a commander's position," said Gulyayev, who was still feeling uneasy over this conversation and was about to try to change it.

"I know what I have to do," responded the CinC Fleet gently but firmly, "I want to know your opinion."

Soon after this conversation Gulyayev received an appointment to the submarine S-101, which was to become an operational Fleet combatant after yard repair.

Ivan Ivanovich Gulyayev's command talent turned out to be very unique, which determined his command line as a tester of new ships. Being a person of the highest precision and punctuality who did not tolerate even the slightest infractions of regulation requirements, at the same time he possessed an ability to dispose people toward himself and make them absolute supporters of his demands, ready to follow the commander in everything without a second thought. High professional training, boldness, confidence and scrupulous, precise

calculation are specifically what the tester needs above all, no matter what equipment he tests, and Gulyayev had this.

Gulyayev commanded the S-101 two years, and it was not easy for him to bid farewell to the ship, which was being transferred to another base, or to the people who had become close and dear to him. But an even more difficult and interesting job lay ahead—to command the Navy's first missile submarine. The ship went down in the history of the country's submarine fleet with the following lines: "September, 1955—First ballistic missile launch from a Soviet submarine from a surface condition."

But that was back before Gulyayev. At that time the submarine commander was Captain 2nd Rank Fedor Ivanovich Kozlov, who also made the first preliminary launches, called test launches. The ship was fitted with modified land-based missiles for a surface launch. At that time a range of fire of several hundred kilometers was considered strategic for the Navy. The submarine launch tubes (there were two) also were not yet suited for submerged launches. The missiles were lowered in them on a special stand. The stand would be raised to an upper position, the missile would be placed on it with a crane, half-clamps would grip it, and plug arrangements and supply cables from onboard power and ship instruments would be connected. After being inspected and adjusted from ship instruments, all this then would be lowered into the tubes onto the lower supports.

Loading was done at night. There were three security zones. No one was admitted to the berth. All personnel were removed from upper decks even on ships that were nearby.

Before firing, the stand with the missile would be raised onto the upper supports. The engine would be started and the clamps would be moved away automatically when it had developed necessary thrust. In addition to the half-clamps there also were transportation attachments—special supports which kept the missile immovable in the tube during ship motion.

After the war we began to build large triple-shaft submarines with three diesels. One was remade into a missile submarine under the direction of chief designer Nikolay Nikitovich Isanin by accommodating two tubes behind the conning tower, whose sail was extended and sloped toward the stern. This was the only experimental ship. Later we began to build exactly the very same series ships. Tests were not yet completed on the experimental one, but series ships already were being laid down. But few were built. The next series of missile-carrying diesel submarines had three missiles.

In case of malfunction during a launch on the experimental submarine, there were provisions to dump the missile overboard. There was one incident, and the submarine was successfully freed of the malfunctioning missile.

Captain 3rd Rank I. Gulyayev assumed command of the ship three months after the press announcement about the first launch of a missile from a submarine. He was to comprehensively test the ship on deployments with the new, powerful weapons aboard. Ivan Ivanovich realized what enormous responsibility rested on him and his subordinates—to consolidate the achievements of Soviet science and technology in practice and give a ticket to life to ships with a new weapon which had a great future ahead in the matter of national defense.

Before Gulyayev's arrival the submarine spent more time in base and put to sea only for short periods. Now the assigned mission was to test the possibility of transporting fully armed missiles, identify their combat stability and combat effectiveness after one month, two months and three months of storage aboard ship under different climatic, sea and weather conditions, and check how safe the missiles were for the submarine and for the personnel. First they conducted a month's test. After this they undertook a more lengthy period: the White, Barents, Kara, Greenland and even Norwegian Sea.

A special launch team of four officers was assigned to assist the ship's team of missilemen and give close support to work with the missiles. For the testers the complexity of the upcoming experiment lay not only in the absence of any kind of experience in such research, but also in the mission assignment itself: on the one hand it was necessary to check missiles for survivability under rigid deployment conditions, and on the other hand not allow an emergency situation to occur.

Before the beginning of this deployment of many weeks, Captain 3rd Rank Gulyayev was summoned to the Main Navy Staff for a hearing with the commander in chief. Several hours before the hearing Gulyayev was told that he would be the one to brief the commander in chief about the submarine's preparation for the next tests. The briefing had to be prepared in writing.

Ivan Ivanovich took three hours to write it. The briefing was quickly retyped and duplicated for everyone present at the hearing. Gulyayev caught sight of Sergey Pavlovich Korolev among them. This was not the navyman's first meeting with the famous Soviet scientist. Later they met many more times in the course of the tests. Korolev would put to sea aboard the submarine and converse with Gulyayev as with a colleague.

...The commander in chief was in a critical mood and kept interrupting. This was 1956. Sergey Georgiyevich Gorshkov recently had replaced Nikolay Gerasimovich Kuznetsov in the post of commander in chief. Being a surface ship man, he still had insufficient knowledge of submarines at that time.

Korolev came to Gulyayev's help:

"Sergey Georgiyevich, here is a suggestion. First let us hear the commander out and then ask him questions."

Although the situation normalized, Gulyayev was under extreme stress as he briefed. Then came the questions: about safety measures, about the laboratory which was to be accommodated aboard a surface ship. Again Korolev rescued the commander, saying "We provided for this," "We counted on that"...

Toward the end the commander in chief asked:

"Do you have any questions of us?"

"Yes Sir," responded Gulyayev immediately.

"What are they?" Everyone looked at the commander with interest.

"First, Comrade Commander in Chief. We have planned tests of the weapon under the most adverse weather conditions. But who in the Fleet will let me go out in stormy weather?"

"Yes," agreed Gorshkov, "a serious question. An order will be given to the Fleet not to detain you."

"And if they do?"

"Just what do you want?"

"I request that I myself brief the Fleet command that I have been authorized in your name to go out in any weather."

"I authorize it. What else?"

"Comrade Commander in Chief, the weapon is new, logistics have not been worked out, everything has to be begged and forced..."

Gorshkov became exasperated:

"What? Perhaps you are lacking emery paper or some other trivial thing?"

"Even emery paper. Where will I get it?"

Korolev again intervened. He began laughing:

"Good lad, the commander, he tests missiles, but remembers all the small points. Sergey Georgiyevich, of course we must help the ship in everything."

"Well, specifically what do you want?" asked the commander in chief.

"That which we request. Nothing more."

Gulyayev returned to the Fleet, and soon an aircraft delivered everything to the crew for which the commander had pleaded with the commander in chief.

At that time Rear Admiral A. Orel was Commander, Northern Fleet Submarine Forces. He summoned Gulyayev.

"What were you gossiping about to the commander in chief? The commander ordered that we find out what your personnel problems are."

Gulyayev was not troubled by the effusive attack.

"Comrade Rear Admiral, I ask that you not yell at me. I briefed the commander in chief on what was troubling me. The officers' lack of housing, for example."

Aleksandr Yevstafyevich grumbled a bit, but listened to Gulyayev. Later he helped with everything necessary. The officers were assigned rooms and it became easier for Gulyayev to work with his subordinates. By the way, there had been rooms free; it was simply that people in the garrison did not keep a very attentive eye on this matter.

But no one but Gulyayev could help himself in one shortage: he was not a missileman, never had studied this weapon and could not consider himself a full-fledged commander of a missile-armed ship.

He learned at sea from his subordinates, who had had special training. When free time presented itself he would assemble the missilemen:

"Well chaps, tell it to me. It is not fitting that the commander knows less than you."

He worked with the literature a great deal, and the equipment was all there on hand. And when the submarine was conducting the next firings after a lengthy program of tests, Gulyayev had just as distinct a feeling for missile weaponry as he had had for the torpedo ordnance in his memorable sniper firings.

The submarine left on a long deployment at noon in the month of August. A minesweeper supported her. Gulyayev met with the minesweeper commander the day before and they became acquainted. Ivan Ivanovich said:

"If something does not go right for you, report immediately so I can take steps and report to the Fleet command if necessary."

Gulyayev realized that it would be enormously more difficult for a small minesweeper than for an oceangoing submarine under stormy conditions.

The first harsh test came in the throat of the White Sea. The submarine's roll reached 45°, to which the submariners were unaccustomed. Ivan Ivanovich was very worried about the personnel, and made the rounds of the compartments often when possible.

Once electrician Ivan Vilshonkov was going around the submarine, saying:

"I'm dying, Comrade Commander, I'm dying!"

Two Vilshonkov brothers served aboard ship: the older Viktor and the younger Ivan. Both took ship motion badly.

"Don't, you won't die. You still will make an excellent seaman. Work as you must. That will help. When there is a chance I will let all of you rest."

But such an opportunity was not to be granted soon. The Barents Sea tore at the ships and they were greeted by a northeaster at the entrance to the Kara Sea. The diesel-electric ship "Lena" and other vessels were heading toward the submarine. Visibility was very bad, it was impossible to determine position, and there was a shallow bank there almost directly in the Kara Gate that was dangerous. As soon as the vessels caught sight of the submarine they turned straight toward her, confident that the submariners knew their position precisely. And that was the case.

Hardly had they passed them when a report came from the minesweeper: water was entering the forepeak. Speed was not great, but then the minesweeper commander reported that he was slowing.

Gulyayev suggested changing course and coming closer to the submarine, which provided navigation safety and constant contact. The minesweeper came in from leeward, remaining somewhat astern. Although the submarine also was being tossed like a cork, the waves astern, "smoothed" by her hull, still were a little less.

They submerged in the Kara Sea after receiving a report from the minesweeper that things were in order for her. The commander went around the compartments. He saw the more cheerful Vilshonkovs.

"Well, did you rest?"

"We recovered a bit, Comrade Commander. But will we really surface again?"

"What do you mean? We need a storm. So get used to it."

Captain 2nd Rank Anatoliy Aleksandrovich Zapolskiy put to sea aboard the submarine from the range. Together with missile department head (the first head of a missile department among submariners) Captain-Lieutenant Sergey Fedorovich Bondin and chief designer Ivan Vasilyevich Popkov, he helped the commander delve into the fine points of missile weapons. There was an insistent need for this. Day and night, launch team operators officers Konstantin Abrosimov, Anatoliy Kuznetsov, Nikolay Tolstov and Anatoliy Yushkov took turns at the missile tubes ensuring missile storage conditions, observed their status, and conducted periodic checks with onboard gear switched on. In case of an accident with the missiles they had to keep it from developing and ensure ship safety.

But not all measurements could be made directly on the submarine, particularly determining the composition of air in the tubes. Therefore they took regular samples of it and would transfer them to the minesweeper in any weather, to a laboratory especially set up there.

Once suspicion arose about an oxidizer leak on one of the missiles. This is an unpleasant matter. Its vapors have a very dangerous effect on people. They decided to check the tube and missile. The chief designer and one of the launch team officers opened the hatch intended for

visual monitoring and cable attachment. The officer squeezed into the tube with the missile, where no space had been provided for a person. He made sure everything was in order, which also was confirmed later by air monitoring data received from the minesweeper. But getting back proved to be a problem. They freed the officer in about a half-hour. Had he suffered from claustrophobia, the operation generally could have ended dramatically.

The ship returned safely to base. The missiles showed excellent reliability. Korolev believed in this. Nevertheless, back at the hearing with the commander in chief he had said:

"Sergey Georgiyevich, if an emergency situation with the weapons or some kind of confusion should arise aboard ship, I ask that I be delivered to the ship at any moment, by any method. I request that this be included in your documents."

The commander in chief said:

"Without any doubt."

Later Sergey Pavlovich was present at all launches.

CinC Fleet Admiral Andrey Trofimovich Chabanenko and Rear Admiral Ivan Alekseyevich Polikarpov, who had replaced A. Ye. Orel as commander, Fleet Submarine Forces, also put to sea for the first missile firings after monthlong trials.

They turned to a firing course in the area of the firings, waiting for the directional gyro and azimuth gyro to arrive at the meridian, i.e., when the navigation system would have minimum errors. The launch was observed through a periscope, but it was not raised until the moment of the launch so as not to damage the optics. At the launch there was an impression of someone hitting the side with a metal broom. No trim or roll appeared. Gulyayev raised the scope as soon as the missile started and observed it until the engine shut down.

In literally a few minutes a report came from the target field:

"Missile fall observed, deviations insignificant. Everything in order."

The CinC Fleet was delighted. Everyone rejoiced.

Ivan Ivanovich remembered all these meetings with Sergey Pavlovich Korolev. At that time, in the far-off 1950's, there still were few who knew Korolev's name and it is doubtful that they connected it with the first missile launches on land and at sea, and then with launches into space. Sergey Pavlovich was simple even to look at: he did not like to stand out from the common mass; he lived the same as everyone aboard ship, zealously seeing to it that his special position was not emphasized in any way in everyday life or in contact with people. When it concerned the job, however, he was decisive, demanding and uncompromising, but at the

same time he would not fail to listen to the opinion of all persons interested in a given matter.

One instrument in the launch apparatus (which at that time, of course, was still far from perfect) malfunctioned in preparation for the second missile launch. What was to be done? Gulyayev briefed Korolev, who was aboard.

"We will return to base," the latter said decisively.

"Yes, Sir. Only I am obligated to report this to the deputy commander in chief."

"Of course, of course," agreed Korolev.

Deputy Commander in Chief Vice Admiral Vladimir Nikiforovich Ivanov was aboard the support ship. It so happened that ultra-short wave [frequency not further specified, but above 30 MHz] communications with them proved to be unstable and the ordinary semaphore was totally obstructed by the bright sun, absorbing searchlight flashes in its light.

"Sergey Pavlovich," said Gulyayev to Korolev, "it will be necessary to wait until the support ship comes closer to the submarine."

"We have no time to wait, Ivan Ivanovich," said Korolev strictly, "it is necessary to proceed to base immediately."

Korolev was a representative of the State Commission and technical director for the firings and Ivanov was deputy commander in chief, the ship commander's immediate superior during the firings. It was not a simple situation. At the same time, Gulyayev clearly realized how dear time was for Korolev, especially if it was wasted.

"Sergey Pavlovich," the commander said to the scientist, "please write your instructions in the ship's log, or I will have to justify myself to the command element."

Korolev immediately made the necessary entry and signed. Gulyayev fired a flare, turned and made full speed for base. By morning a new instrument had been delivered and installed and the missile submarine again put to sea, but as soon as the submarine returned to base, Vice Admiral Ivanov summoned Gulyayev and gave him a dressing-down. Korolev heard this.

"Admiral," he approached them, smiling, "you ought to be ashamed. The commander did what was necessary for the job and he should be thanked—we kept within the deadline and the weather did not interfere; but you are swearing, even though all formalities have been observed. But you accuse the commander of something."

"Well, Gulyayev," said Ivanov, beginning to laugh, "you have provided yourself with a powerful defense. Fine, let's drop it. Nevertheless, Gulyayev, the next time you do something without authorization I will punish you."

"So it is," the commander thought to himself, "we testers always risk something: either our lives or the ship or the possibility of ending up with punishment."

But Ivan Ivanovich Gulyayev never experienced anything before as on that morning in 1957 when the submarine was being tested for the missiles' blast-resistance.

...He made the rounds of the submarine with engineer officer A. Agapov. It remained to open the ventilation of the middle group of tanks for the ship to submerge. Gulyayev gave the command to the engineer, who opened the middle group's ventilation valve. Sensing the submarine was heading downward, the commander ordered the engineering department head to leave the ship. Literally seconds remained at Gulyayev's disposal. In the conning tower he quickly dogged the lower conning-tower hatch, then the upper one, and stepped right from the bridge into a launch holding at the missile submarine's sail.

The conning tower disappeared completely beneath the water. Ivan Ivanovich held up the launch a bit as he saw off his ship. It was the first time in all his career that he had seen such a picture: an enormous ship, his ship, disappearing into the depths right nearby.

...The charges came closer and closer to the submarine. Clinging to the rail aboard the support ship, Gulyayev tensely awaited each explosion. As the designers had tried to convince them, the missiles were supposed to hold out. But what if, just now, in the next instant after an explosion, the water did not simply swell up, but rose in a plume? Then the all-clear would be sounded, because there simply would be nothing to test.

By the way, during the blast resistance tests the missiles were filled not with live components, but with seemingly safe components similar in weight, viscosity and other characteristics. And the warhead was equipped with telemetry instruments and recorders which registered the condition of the missile and of its instruments and equipment for subsequent processing of these data.

The all-clear really was given, but because there was no longer a need to test the ship. The last depth charge had been exploded 5 m from the submarine's side, but the missile submarine and the missiles in her tubes withstood even this.

Divers would be lowered after each explosion. They would attach hoses to the submarine's emergency blowing system, supply compressed air and the ship would come to the surface—with an ever-increasing list and trim, but alive and intact.

Nevertheless, Ivan Ivanovich soon had to bid farewell to the missile submarine. A year later he was appointed commander of an experimental nuclear submarine, also as tester.

As a matter of fact, after the successful tests Gulyayev was offered the position of brigade chief of staff. Brigade

commander Captain 1st Rank V. P. Tsvetko had a talk with him on this subject. Ivan Ivanovich not only was not happy with the suggestion, he began to decline it:

"Well, give me at least another two or three years to command a ship."

"How many are possible?" asked Tsvetko in surprise. "You have been commanding for five years already. Haven't you really become tired of it?"

"Not only have I not become tired, I have not even lost the taste for it."

"Fine, I'll make a report."

No one spoke with Ivan Ivanovich on the subject any more, and soon he was offered a position as commander of a nuclear submarine, one that was still in blueprints.

He agreed willingly. He already had heard that nuclear submarines were being built, but had not seen them and could only guess what they were like.

(To be continued)

Footnotes

1. The reader will find much of what was considered a classified subject for decades in the memoirs and notes of CinC Navy Admiral of the Fleet V. N. Chernavin entitled "Geroi atomnogo flota" [Heroes of the Nuclear Fleet], which is being readied for publication in Voenizdat. For the first time, not only details of the creation and mastery of nuclear submarines, but also instances of their loss will be published. In telling about his colleagues' courage, the author narrates tragic pages in Navy history and gives the names of submariners whose names just recently were known only by a narrow circle of people. The book gives an idea of the difficult service of submariners and fully reveals their courage, staunchness and readiness to perform military duty. We offer an excerpt from this book for your attention.

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Chernavin on Nuclear Powered Vessels, Part 2

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[Conclusion of article by Admiral of the Fleet V. Chernavin with literary record by S. Bystrov under rubric "Deployments and Flights": "Tester"; beginning of article in MORSKOY SBORNIK, No 8, 1991]

[Text] Gulyayev's nuclear powered ship was the sixth in succession. The first submarine was received by Captain 1st Rank Leonid Gavrilovich Osipenko, the second by Captain 2nd Rank Vladimir Semenovitch Salov, the third by Captain 2nd Rank Vasilii Petrovitch Shumakov, the fourth by Captain 2nd Rank Boris Kuzmich Marin and the fifth by Captain 2nd Rank Nikolay Vladimirovitch Zateyev. The sixth in succession was the first and last of its design. This

one was by a civilian designer, Aleksandr Karpovich Nazarov, rather than Captain 1st Rank Peregodov.

This nuclear powered submarine, largely similar to the previous ones, had a greater displacement (around 4,000 tons), but was distinguished by the principal factor of power engineering. It was proposed to install fundamentally different reactors (developed by Aleksandr Ilich Leypunskiy) with a heat-transfer metal on the submarine.

Thermal-neutron reactors were used in the water-moderated water-cooled units, but an intermediate-neutron reactor was used on the submarine with a liquid-metal heat-transfer agent, which permitted a significant reduction in nuclear fuel volume without loss of energy content. To the contrary, energy content should be considerably higher. In addition, an intermediate-neutron power plant was to have possessed a capability, albeit slight, of nuclear fuel conversion.

The idea of these reactors in itself generated arguments and doubts. Many were attracted to liquid metal as the primary coolant. First of all, it did not require high pressure since it did not boil up when heated; secondly, it could be heated to a higher temperature, which increased the nuclear plant's efficiency; thirdly, such a reactor was considered safer (unfortunately, this was not borne out). But technological difficulties and lesser reliability in operation were identified even in calculations and later confirmed in practice.

Of course, Gulyayev could not even begin to surmise any of this. He ran across problems just in the course of construction, and then not with all of them. Difficulty in reactor adjustment and finishing work affected dates of the ship's construction, which even dragged on four years. Gulyayev's submarine already was being built as fast as possible when construction of my nuclear powered submarine (of the very same design as the first four) began at this same yard. We were built quickly, went through all the trials and became operational with the fleet, but Gulyayev's nuclear submarine just could not be completed.

I was very pleased by the meeting with Ivan Ivanovich at the yard. I experienced great liking and respect for him back from memory of old times as a lieutenant.

It so happened that after finishing school I and my classmate went to serve aboard neighboring submarines in the same formation, my comrade going to Executive Officer Gulyayev. My friend often told me about Ivan Ivanovich with admiration, about how precise, demanding and very attentive to officers, especially young ones, he was. Inasmuch as both crews lived in the same barracks, I myself often had occasion to meet Gulyayev. He would stop without fail, strike up a conversation, inquire about service, what was troubling me, what problems there were, and would offer advice unobtrusively and cautiously. Sometimes when a difficult situation occurred, we lieutenants ourselves would go to

see Ivan Ivanovich. Ship commanders deeply respected Gulyayev and recognized his special pedagogic gift, and so our contact with Ivan Ivanovich was taken without jealousy.

And of course I never thought that we would build together and that I would have occasion to help Ivan Ivanovich master a nuclear powered submarine, but that is just what happened. When we began to conduct sea trials of our submarine, Gulyayev began putting to sea aboard her together with Captain 1st Rank Aleksandr Naumovich Kirtok, the submarine brigade commander. He would study his reactor during training with the crew, but when doubts began to arise over its use he also studied the water-moderated, water-cooled reactor, so it presented no difficulty for him to master our ship. Gulyayev passed the tests given by Kirtok in sea trials for independent handling of the nuclear submarine. I was an involuntary witness of this and could not help but notice the enormous experience and proficiency of the veteran commander.

Inasmuch as Gulyayev's submarine was of a new design, some of her spaces were reproduced on the mold loft in wood. Many details were studied and updated that way. Ivan Ivanovich in particular suggested changes in the commander's cabin and requested two bunks be installed, since he presumed that some senior officer definitely would be aboard both in trials and on deployments.

Ivan Ivanovich was appointed commander of this still nonexistent submarine in February 1956. He formed the crew and began its training. The training was directed by Captain 1st Rank Mikhail Leonidovich Sokolov, older brother of future Minister of Defense Marshal of the Soviet Union Sergey Leonidovich Sokolov. M. Sokolov commanded a submarine in the Northern Fleet during the war.

Gulyayev's crew arrived at the yard in 1960. The submarine already was being built on the ways. As an experienced submariner, Ivan Ivanovich was sent as second commander on a diesel submarine commanded by Captain 2nd Rank Gennadiy Nikonovich Shvetsov on a deployment to the Atlantic. It was planned as a five-month deployment, but the submarine returned about two weeks early. One of the diesels had malfunctioned. During the construction Gulyayev had occasion to be aboard other submarines as well, especially during exercises.

Construction first would be interrupted, then would be renewed. Many problems had to be clarified and even decided on the spot, especially concerning protection of the nuclear power plants. But all this did not trouble Gulyayev; to the contrary, he delved into the specifics of his ship with greater interest.

Once Ivan Ivanovich related the following:

"It always surprised me how it could be that metal flows in metal and is moved by a pump. I understood this to be technically possible, but although the heat-transfer agent

is a liquid, it is metal. It will break the blades. But later when I took a look (the main pumps already had operated for many thousands of hours), the blades seemingly had become better. True, they were driving metal not yet being heated by a reactor, but what was the difference?"

The liquid-metal reactor reacted very capriciously to the slightest deficiencies of heat insulation. It was enough to have one incompletely insulated place for a lock or a "salamander," as it was called, to form. And this despite the fact that the temperature of the heat-transfer agent (an alloy of lead with bismuth) was rather high. It is common knowledge that the Americans also built one of their first nuclear powered submarines with a liquid-metal heat-transfer agent, but used sodium and potassium as such. These reactors did not work for them and they gave up their further use. Our submarine proved more successful, largely thanks specifically to the submarine commander, who was able to achieve highly professional power plant operation and maintenance by personnel.

Subsequently we built an entire series of submarines with liquid-metal reactors. The lead submarine, named "Lira," was mastered and received by Captain 2nd rank A. Pushkin. All crews of these submarines trained for a long time in the formation where Gulyayev served as chief of staff over seven and a half years. He put much work into their training. These submarines had high specifications and performance characteristics and were automated to the maximum, which permitted having a rather small crew consisting almost of officers alone. But still they did not fully bear out the hopes placed on them, and the water-moderated, water-cooled reactors were recognized as the only sure direction in ship nuclear propulsion engineering for many years.

It was the primary circuit and its adjustment that gave the most trouble during construction of Gulyayev's submarine. Initially, despite thorough preliminary calculations, many places were identified with insufficient heat insulation, especially where the primary circuit system passed through bulkheads, where the need arose to simultaneously support such sometimes opposite requirements as strength, seal, and heat insulation.

Inasmuch as the metal was in the circuit under low pressure, it was "spring-operated" by a special gas system which safeguarded against the appearance of "salamanders." But if gas pressure fell (the inert gas which filled this system is very unstable), metal would get into the gas bleeds and immediately obstruct them on cooling. Such situations arose at the yard during adjustment, but there the troubles were rather quickly remedied by experienced workers. At sea, however, such a malfunction could cause very serious complications.

Initially the heat-transfer agent was moved by heating from external heaters, which ensured safety of adjustment work. Then they began testing the reactors under way after the submarine was launched, all the while

keeping a very attentive watch on the heat-transfer agent's purity. Contaminants or formation of poison were not allowed in the system. Workers and seamen went around in white robes and control was very strict when the primary circuit was assembled. During assembly it happened where something would not fit somewhere. Certain mismatches even were found in the drawings. This was not from carelessness—the job was too complex. Special concern was shown for reactors, steam generators and pumps, whose cost automatically inspired respect and caution.

A most thorough check of all systems was made before the first sortie at the minimum monitorable reactor output level. In this regime the shim rods were moved out a very small amount and the reactor began to "breathe" with its own resources, putting out from one and a half to three percent power.

The emergency protection system on these reactors did not use compensating lattices which absorb neutron radiation in water-moderated, water-cooled reactors, but rods. The specialists were worried by the effectiveness of this protection, which was triggered in case of an accident. But reliable, effective heat removal from the core was required even with a reliable shut-down of a controlled chain reaction. This operation was carried out more simply and already had been worked out in water-moderated water-cooled reactors, but here it was necessary to conduct experimental tests.

Studying the ship thoroughly and with satisfaction as usual, Gulyayev became a major specialist in its power engineering, conceding little in this to the engineering department head Engineer-Captain 2nd Rank O. Nagorskiy. As a commander, Ivan Ivanovich was very interested in the ship's navigation system as well.

Here he felt himself to be on an equal basis with navigation department head Captain-Lieutenant K. Mudrushin.

Competent, conscientious, amicable officers generally were selected for the crew. Of course, they were not ideal ones, but the commander was able to work with them and they did not let him down.

The steam generators also gave the crew a lot of trouble. At that time they were not distinguished by high reliability, and all nuclear submariners had many headaches with them, but the primary circuit pumps about which they were worried operated faultlessly. The turbines and turbogenerators also gave no trouble. In contrast to other submarines, on this one the turbogenerators were not attached, but autonomous. They permitted supplying both slow speed and electrical power under the water, and in a surface condition they even supported mooring using the turbines, which commanders of nuclear powered submarines with attached turbogenerators permitted themselves only in exceptional instances.

Many yard specialists and representatives of various Navy services arrived for the ship's first sortie. This

somewhat complicated conditions of habitability and crew work, but trials are not conducted any other way.

We proceeded on low power. We checked the propulsion engineering and simultaneously navigational and radio-technical materiel and acoustics at slow speed. The submarine had conventional torpedo ordnance, so no trouble arose with it.

A tug periodically came up to the nuclear submarine, brought necessary yard specialists and took off unnecessary ones. Ship trials at full speed, which lasted around 24 hours, were the most distressing. Submergence depth was set at 60 m, but we had to be very selective in choosing headings to ensure operating safety since the sea was not distinguished by deepness and was saturated with vessels in the designated areas. The commander dealt with this himself, reported his suggestions to the command element, and they were completely accepted.

The submarine immediately demonstrated her high speed qualities. In this respect she surpassed the nuclear powered submarines with water-moderated, water-cooled reactors. "Lira"-Class submarines with the liquid-metal heat-transfer agent were distinguished by even greater speed and maneuver qualities (approaching the characteristics of torpedoes).

After successfully completed trials the submarine went to a specially prepared base in the fleet. Gulyayev had been there earlier aboard diesel submarines, but the base had been transformed beyond recognition while the nuclear submarine was being built. For the first time in the Northern Fleet this was a base fully prepared to receive nuclear submarines and was intended above all for ships specifically with that power engineering. Here Gulyayev's nuclear submarine could receive all necessary servicing. Structures were built for the radiation safety service and many other specialized services. The builders already had turned over several residences and the submariners immediately received apartments. A fleet officers' club was being built. Nuclear submariners previously could not even dream about such conditions.

But they were not allowed to rest. The ship began preparing for her first long deployment in the Atlantic to full endurance.

Vice Admiral Georgiy Nikitich Kholostyakov was appointed chairman of the government commission for accepting this submarine. He also was approved as deployment director. In addition to him, the following arrived aboard the submarine: Rear Admiral Ivan Dmitriyevich Dorofeyev, deputy chairman of the commission; Engineer-Captain 3rd Rank Nikolay Ivanovich Odinov, commission secretary; Engineer-Captain 2nd Rank Rostislav Dmitriyevich Filonovich, from the Navy Main Technical Directorate; Captain 2nd Rank Anatoliy Nikolayevich Yakovlev, assistant fleet flag navigator; Aleksandr Karpovich Nazarov, the ship's chief designer; and a small group of specialists from enterprises involved in creating the ship.

The route was plotted to the area of the Equator. Submarine trials were conducted on some legs of the route under different sea and weather conditions and outside water temperature. Of course, special attention was given to the propulsion engineering. It was "pumped" with a full load in checking reliability at various speeds and depths.

The crew understood that one could expect everything in such regimes, and it was under constant tension. The seamen had been prepared for this, and the deployment's success largely was the result of the submariners' high sense of responsibility.

The deployment shaped up successfully on the whole, although there were enough minor bugs in the propulsion engineering: first a steam leak would begin somewhere, then the distilling plant would "turn sour," then individual pieces of machinery would fail. No one figured that such a very complex engineering structure as a submarine with nuclear reactors could be brought to an exceptional degree of finished work at the yard.

A vacuum drop in the primary circuit gas system of one of the reactors proved to be the greatest unpleasantness. It was what already had been encountered at the yard. The heat-transfer agent metal backed up in one of the lines, where it solidified. As the submariners said, it was necessary to crawl "into the devil's soul" and work under conditions of rather high radioactivity. Engineer-Captain 3rd Rank Aleksandr Vasilyevich Shpakov, propulsion division officer, volunteered to perform the repair although there were enough capable specialists among his subordinates.

Garbed in special protective clothing, Shpakov cut the gas line and manually tamped it out, forcing out the solidified metal. No other method existed. Then welding specialists welded up the line. The work was superdifficult under shipboard conditions. First of all, metal or poison must in no way get into the system; secondly, the weld seal had to be absolute, because for an inert gas it is not that microfissures are passable, but micropores are passable.

Shpakov received the largest (albeit permissible) radiation dose, but at that time this no longer frightened the nuclear submariners. Medical personnel had sufficient experience to determine the limits of radiation safe for health. By the way, already then it had been found that some people were capable of receiving a degree of radiation without injury which was fatal for others.

On this deployment very good relationships formed between Gulyayev and Kholostyakov, a legendary person with a difficult destiny and biography. Georgiy Nikitich had to live through the repressions of the 1930's, go through the entire war and fall into disgrace with the commander in chief, Sergey Georgiyevich Gorskov, with whom he had fought as an equal at one time, and dramatically perish at extreme old age.

Unfortunately, I did not have occasion to meet Georgiy Nikitich, but I heard a great deal about him. By nature Kholostyakov was a direct person, at times abrupt, but not coarse. Subordinates loved him. And on the submarine he became the soul of the collective and skillfully eased the tension of the deployment. If something was not going right for the officers, he would say:

"Here is what we'll do, comrades; you meet and have a talk and then we will hold a plenary session. You will report everything to us and we will say what you are capable of and what you are not capable of."

Georgiy Nikitich loved contact with the seamen. He peeled potatoes with them and conversed in the compartments. He had an impression about every seaman: who was feeling how, what he was thinking, where he was born, what kind of a family he came from... In this respect it was even difficult for the political officer, Captain 3rd Rank Mikhail Alekseyevich Petukhov, to vie with the admiral. But to Gulyayev Kholostyakov said:

"Your job now, Commander, is the ship. You are responsible for her, and here is where you act. We will carry out all other measures without you."

Georgiy Nikitich far from always enjoyed himself peacefully at the "plenary sessions." He did not arrange dressings-down, however, but presented lessons in a directly businesslike, worthy manner, and no one held resentment for him. It was not for nothing that at a meeting of crew personnel after the deployment the navymen unanimously conferred the title "Honored Ship Commander" on the vice admiral. And although it was not prescribed by anything anywhere, Georgiy Nikitich was very proud of that honor.

In 1959, after having worked for several years before this in the Higher Military Academy (now the USSR Armed Forces General Staff Military Academy), Georgiy Nikitich decided to return to the naval forces in the field and was appointed deputy chief of the Permanent Commission for Acceptance of Ships. And Hero of the Soviet Union Vice Admiral G. I. Shchedrin was the commission chief. Kholostyakov had a very zealous attitude toward his duties. He was already over 60, but during 1963-1964 alone he spent almost 100 days at sea aboard submarines being accepted from industry.

And his deployment with Gulyayev to full endurance was at the initiative of Kholostyakov himself. As Shchedrin recalled, the commander in chief, who was overly cautious for a long time, finally gave the okay for 40 days. But it was specifically because of Kholostyakov's presence aboard that proper significance was not attached to their deployment, which of course Gulyayev did not know. The voyage was distinguished by its uniqueness even against the background of already familiar deployments of nuclear powered submarines.

Georgiy Nikitich would leave the following entry about the 1964 deployment in his unpublished manuscripts:

"The commander is Captain 1st Rank I. I. Gulyayev. He has had occasion to test new submarines and prove in practice what our equipment and weapons are like. It is exceptionally interesting to work with him. It is typical that he knew the entrusted equipment down to the finest nuances. The very same kind of crew also was selected. . .

"We reached the Central Atlantic. Exactly 40 days will result if we now reverse our course. But it is still necessary to check the power plant in operation not only at different speeds, but with a rather warm outside water temperature. They extended our course southward. We had to economize on food. The deployment lasted 51 days under water."

We nuclear submariners knew about this deployment and awaited the return of the ship, which had shown record endurance for those times. And it somehow seemed strange that the exploit performed by the crew remained unrecognized.

Here is how the newspaper KRASNAYA ZVEZDA assessed all this almost a quarter-century later:

"The personnel were recommended for state awards only after the minister of defense took a more detailed interest in this voyage. The Hero of the Soviet Union title was conferred on Captain 1st Rank Gulyayev by ukase of the USSR Supreme Soviet Presidium of 2 March 1966..."

At that time Gulyayev already was serving as chief of staff of a formation of submarines at the Leningrad Naval Base. One day Captain 1st Rank I. Kolchin, the formation commander, urgently summoned the chief of staff.

"Why didn't you mention the Hero of the Soviet Union title being conferred on you?"

"What hero?" asked Gulyayev in surprise. "I don't know anything."

"What do you mean you don't know? Well then, wait a bit..."

Kolchin ordered all formation personnel formed up and announced:

"Comrades, by ukase of the USSR Supreme Soviet Presidium, the Hero of the Soviet Union title is conferred on our chief of staff, Captain 1st Rank Ivan Ivanovich Gulyayev."

They shouted "Hurrah!", clapped, congratulated and embraced. But for complete happiness Gulyayev nevertheless was just lacking those comrades, colleagues and subordinates with whom he had covered the most difficult miles in his life.

Probably it would have been possible to end the story about this remarkable submariner and man here. In all, Gulyayev took part in training crews and an immediate

part in trials of several dozen submarines of different designs. By the way, even after going into the reserve Gulyayev remained among personnel afloat. Even now he works as a captain-mentor of the Expedition of Special Sea Pilotages of the USSR Ministry of the River Fleet, continuing to build up his qualification afloat, which for him already has exceeded 50 months, of which around one and a half years are under water.

But it seems to me necessary to finish telling the story of his submarine, an experimental, unique one in the Navy.

After Gulyayev, the ship was commanded by Captain 2nd Rank Pavel Fedorovich Leonov. On 16 July 1965 the submarine departed on a second deployment, this time to the Mediterranean. Captain 1st Rank A. P. Mikhaylovskiy, chief of staff of the submarine division, was the senior officer aboard. Arkadiy Petrovich already had experience in commanding nuclear powered submarines and had received the Hero of the Soviet Union title for a transit beneath Arctic ice from the Northern to the Pacific Fleet.

Rear Admiral M. Osipov and acting formation commander Captain 1st Rank I. Gulyayev saw the submarine off on this deployment.

The second deployment of Gulyayev's, or more correctly now Leonov's, submarine was a working one. The crew was to accomplish a large number of operational training missions connected with performance of combat patrol duty. The ship was considered sufficiently mastered and tested, so that neither the commander nor the command element experienced any anxiety over her technical condition.

On 23 June 1965 Arkadiy Petrovich Mikhaylovskiy entered the following in his diary:

"Despite warm outside water, the temperature regime in the submarine does not change. The air in compartments is +18°. The refrigeration machines are working like animals. And our equipment for now generally has not had the slightest criticism.

"Experience suggests to me that this cannot last long, for something at least nevertheless should break down.

"But one would like any breakdowns (if they are inevitable) to begin, well, at least in the second month of deployment. It is so extremely pleasing to cruise when equipment is serviceable."

The first malfunction appeared a week later: a slide valve-switch for the after planes broke. But this is not a great misfortune. They shifted to reserve control from the ship hydraulic system and began changing the slide valve. Unpleasant work, but they coped rather confidently.

A more serious incident occurred on the following day, 31 July. Mikhaylovskiy described it as follows:

"I was lying on the narrow little couch of my cabin, reading. The air conditioning system fan was humming evenly. It was quiet and calm in the compartment.

"Suddenly I heard a strange hissing and gurgling. The impression was as if an outside valve had been opened somewhere in the compartment and water was hitting the deck in a powerful stream. I heard several excited voices beyond the bulkhead and heard running.

"I rose from the couch, switched on the overhead light and suddenly saw dense white smoke creeping through all the chinks in the door and bulkhead into the cabin.

"I dashed to the door, threw it open and immediately jumped back. A bright white flame struck my eyes. The entire compartment was full of flame!

"I instinctively slammed the door shut, but the cabin already had filled with smoke. It was irritating my chest and breathing became more and more difficult.

"I realized there was a fire in the compartment. 'Stop!' I thought to myself, It's not enough to burn up in your own cabin! And again I threw open the door and jumped out into the compartment.

"Everything I have just described took a matter of fractions of a second.

"At this same moment a stream of VPL-52 foam lashed my legs and went past me, against the jamb of the already burning door of my cabin. The fire was quickly dying down. In the smoke I made out with difficulty another two or three centers of fire already dying out along the compartment corridor.

"A hand suddenly appeared from somewhere out of the smoke and poked a self-contained breathing protective mask into my face.

"The fire was beaten down quickly, but there was much smoke in the compartment and nothing could be seen. It was necessary to learn the cause of the fire and inspect the bilges, secluded corners and cabins immediately and see whether or not someone had fallen somewhere without a protective mask and had suffocated in the smoke.

"Gradually the situation cleared up. The fire broke out from the self-ignition of a regeneration plate which, in violation of all instructions, compartment leader Chief Petty Officer Gunchenko decided to use for washing the deck; he removed it from the sealed package and accidentally touched it to an oily rag. All this outrage occurred in the compartment corridor 30 cm from my cabin door.

"In contact with an oily rag, the regeneration substance burns better than any gasoline. It was natural that the bulkhead paint and my cabin door's wooden facing immediately blazed up. Gunchenko was on the point of trying to stamp out the fire with his feet, but he only

broke the plate into small bits and created another three or four small centers of fire along the compartment corridor.

"Engineering department head Engineer-Captain 3rd Rank A. Ivanov and compartment officer Engineer-Lieutenant V. Reznik who hurried up turned on the VPL-52 fire extinguishing system and beat down the flame."

Of course a fire underwater is an unpleasant thing, but this could be categorized among slight incidents not connected with the ship's technical condition.

Stuffing boxes of outboard fittings began to leak after another two weeks, i.e., sea water began to enter the pressure hull, but even this is a customary though troublesome thing for submariners: a working unpleasantness, so to speak. Nevertheless, there were enough such "minor" unpleasantnesses on the submarine. Here is one more entry by Mikhaylovskiy, from 19 August:

"The commander and I were sitting in his cabin after supper, peacefully throwing the dice and playing a game of 'kosha' when suddenly the compartment's quiet calm was cut through by the jerky rings of damage-control quarters: Fire in the 7th compartment! Starboard propulsion motor station burning!

"It stands to reason that we immediately darted to the control room like a shot. There were the usual commands, reports, and initial measures in fighting fire. We could see the firefighting system cylinders being discharged. The reports came: 'Flame put down!' 'Small amount of smoke.' 'Fire extinguished. No victims.'

"The commander strode through the control room like a tiger. I saw he wanted to burst into a tirade of the choicest naval terms,' but he did not bring himself to do so with me around. "The engineering department head ran off to the 7th compartment to look into things.

"Five minutes later his report came from the 7th that damages in the starboard propulsion motor station were slight. Two burned-out contacts could be restored in 3-4 hours.

"Three long rings and the command All clear damage-control quarters!' relieved general tension.

"A half-hour later, head lowered, the engineering department head already was reporting the causes and consequences of the fire. The main cause was poor training, slipshodness and confusion of electricians standing at the propulsion motor control stations."

Such a thing simply could have happened for Gulyayev. The crew had been rehearsed faultlessly in all respects.

But then there were already more serious and more specific unpleasantnesses for this ship.

"This morning, gas and aerosol activity jumped in the reactor compartment and adjacent compartments.

"The concentration of radioactive gases in the air in the reactor compartment exceeded the maximum permissible level by five times. This is not very dangerous, but still it was necessary to move the people out and forbid communication (passage through the reactor compartment) with the after compartments.

"The most unpleasant thing was that the reason for the appearance of activity was not found and remedied. It was well if this was an accidental ejection of gases resulting from a breach of evacuation of reactor compartment working spaces.

"If it was unsoundness of the alloy circuit, this was enormously worse. The activity was fought by a general evacuation [vakuumirovaniye] of the reactor compartment with the periodic addition of pure air there from high-pressure cylinders.

"We managed to beat the concentration of active gases down to 1.5 maximum permissible concentrations toward evening. We authorized passage through the reactor compartment by the airlock method. A search for a little hole' just did not produce results. We will observe further and be on the alert.

"28 August 1965. In the morning we took control measurements for the last time and were convinced that the radiation situation in the reactor compartment had gone back to normal. Thus we will consider the ejection of gases which occurred the day before yesterday a random phenomenon. Somewhere someone missed something in evacuating or in evening pressure. Although this is unpleasant, it is not fatal."

"4 September 1965. This morning the shim rods had to be taken from the core finally and completely. True, the reactor still can operate for a certain time inasmuch as now it has been poisoned' by xenon. If we reduce power, then depoisoning' will set in, because of which a certain reactivity margin will be freed. But reducing reactor power means reducing speed, and this in turn will lead to an increase in the time necessary for returning to base.

"That is what had to be done. We reduced power on the port side and the reactor entered a 'depoisoning' regime, because of which it still functions by 35 percent.

"For now the right reactor has not run short, but it will last for about 5-6 days...

"6 September 1965. Port reactor continues operating in a 'depoisoning' regime, because of which we are still making up to 14 knots.

"No one can say exactly when the subcutaneous' margin of reactivity will be exhausted, since the amount of xenon which poisoned the core is a random value. Consequently the 'depoisoning' period, depth of poisoning and magnitude of reactivity additionally freed also is a random value (unquestionably, with a mathematical expectation, variance, and initial and central points).

"Pessimists assume the reactor will operate a maximum of 24 hours. Consequently, tomorrow it will be necessary to stop the port reactor and proceed only on the starboard one, which also will completely use up the reactivity margin in about four days and will be able to operate only at reduced power through depoisoning.' In this case we will be able to have a speed of no more than 8 knots and consequently will not arrive in base before 18 September.

"But there also are optimists. They believe that much xenon has accumulated in the core and consequently we will squeeze out 14 knots to the base itself, which means we will arrive on 14 September. This is what it means to operate at the end of a reactor life.

"8 September 1965. Port reactor nevertheless had to be excluded from power plant operation, removing it to a level of power necessary only for self-heating and keeping the alloy in a liquid state.

"On the other hand, 'depoisoning' in it went at rapid rates. In about three days we again will be able to get up to 40 percent of power from this reactor. Well, for now we are proceeding only on the starboard reactor, having reduced speed to 12 knots. . . .

"10 September 1965. Still another fire! Today at around 1500 hours the underwater stillness again was cut by the brief, alarming rings of damage-control quarters. Fire in the 6th compartment (the main turbine compartment), oil was burning in the bilge. Extinguishing the fire using the very same VPL-52 (I am becoming more and more convinced that our new firefighting system is exceptionally good) took only three minutes. The 6th compartment bilge was filled with dense firefighting foam literally instantaneously.

"The source of the oil ignition was the very same—regeneration. Bits of regenerative substance were drawn into the bilge by the strong draft of conditioning fans during recharging of the RDU [propulsion reactor] as a result of insufficient attention by the watch. Contact with oil which always contaminates the bilge, and there was fire, smoke, conflagration. The third instance during the deployment! This really does not fit within any bounds!"

On this deployment 15,000 nm were left behind and the overall duration of the voyage was 60 days. I especially quoted the emergency chronicle of this generally successful voyage because it was the last long one for the ship. The reactors had used up their life. Modernization of the submarine and recharging of the core lay ahead. This operation already had been well worked out for water-moderated, water-cooled nuclear powered submarines, but here it led to a drop in reactor reliability, which later led to dramatic consequences.

This occurred during the crew's rehearsal of elements of the second ship-type training task, i.e., in a brief sortie. An emergency of the port reactor occurred under these rather ordinary conditions.

Here is how Captain 1st Rank (now Rear Admiral (Reserve)) Valeriy Timofeyevich Polivanov, chief of the submarine division political department, told about this later.

"At around 1900 hours the submarine was returning to base to take aboard a staff with the division commander for giving the ship-type training problem and to put to sea again at 0400 hours.

"The submarine was mooring when the division commander and I drove by. I suggested that we drive up to the ship. The commander, Captain 1st Rank Leonov, descended to the pier and reported to the division commander that the submarine had returned from sea and that there had been no criticisms.

"I was approached by Captain 2nd Rank Vladimir Vasilyevich Anisov, the ship political officer, and Major of Medical Service Boris Ivanovich Yefremov, the medical service chief.

"Something is wrong here..."

"But what?" I asked.

"Something is poisoning the special damage controlmen and making some others sick. Something with the reactor."

"We immediately began to look into it. It turned out that back at about 1300 hours the chemical specialist and doctor began to report to the commander that radioactivity aboard ship apparently had increased: dosimeters were going off the scale.

"Confident of the reliability of the reactors, the commander believed that the instruments were wrong and paid no attention to the reports. But soon he himself realized that something was not right. They began increasing port reactor power, but it was dropping.

"As we later determined, a major slagging of the liquid-metal heat-transfer agent of the first circuit occurred (which Gulyayev feared, carefully watched and did not allow—Author). The circuit seal was breached. The radioactive beam began striking the bow of the ship, and those who of course ended up in it without suspecting were irradiated."

Before this accident it was believed that the liquid-metal reactor was the safest and there could be no gamma radiation in it, since in case the first circuit ruptured the metal would obstruct it and prevent a leak. Everything turned out differently in practice.

Several persons had been irradiated. Nine died in the hospital. The commander was held strictly liable by the party and removed from his position.

Unquestionably, had the commander taken a more responsible attitude toward his subordinates' reports the accident's consequences would not have been so serious. This incident served as a major lesson for all nuclear

submariners. But the ship proved unsuitable for subsequent operation. She stood in "quarantine" for long years until a methodology was developed for taking her apart. And in the end this test submarine ceased her existence.

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Construction of Carriers Halted

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in Russian 12 Nov 91 p 3

[Article by Captain First Rank of the Reserve V. Zabor-skiy and Major General of the Reserve A. Kubarev, candidate of military sciences, under the rubric "Views, Positions": "Aircraft Carriers: To Build Them or Not?"]

[Text] "The outlines of the enormous ship began to appear more and more clearly in the morning mist. Our small cutter got closer and closer to it until the deck of the ship loomed over us, covering half the horizon. Two-meter-high golden letters floated past us—Admiral of the Fleet of the Soviet Union N. G. Kuznetsov. There is majesty in each line of the form. And the realization automatically broke through: The state that built such a ship is great and powerful. Its greatness cannot be ignored. It is foolish to dictate conditions to it. It can only be approached with good intentions..."

That is a fragment from an article by a foreign journalist that was dedicated to the Russian Navy. But here is an excerpt from an article by a native author: "The construction of an aircraft carrier is a venture. Aircraft carriers do not correspond to the 'military defensive doctrine' that we have declared. They are not capable of defending our country from naval directions, they do not bring benefit to the defensive might of the country, they expend resources that are obviously lacking for the creation of the necessary systems of defense from naval directions..."

A lot has been written about this in recent years. About ships, which in the Soviet classification are treated as heavy aircraft-carrying cruisers. Should they be or not? Are they needed or not? And the green light is given in the press more and more frequently to those who raise their publicist axe over the fleet and the achievements of our country's shipbuilding.

Well, let us analyze it together. Remembering first of all that the fate of our fleet was not the easiest for a century. It was born of a heroic feat, it grew, and it got stronger. And only an heroic feat can save it today. Not by a single person, but by the people.

What should the fleet be? The answer to this question by every professional briefly sounds like this today: balanced. That is, possessing all of the components in the necessary proportions—from submarines to aircraft-carrying ships. Attacks were made at different times against different forces of the fleet, and today the spears

of the attackers are aimed at aircraft carriers, and for this reason we are talking about them.

It is necessary to start with the statement: The surface ship inventory of our fleet never had and, unfortunately, still does not have aircraft carriers. Yes, this is so no matter what is proclaimed by the exposers of "the excessive infatuation of the Navy with aircraft carriers." And this is at a time when aircraft carriers long ago showed their combat capabilities to the world. They took their place firmly in the navies of other states as far back as a half century ago.

The appearance of aircraft carriers, or the "aviamatka", as they were previously called, goes back to the years 1926-1936. The first place for the creation of the world's first aircraft carrier of a special construction belongs to Japan.

On the threshold of World War II, the Japanese admirals began to speed up the preparation of the navy for aircraft carrier naval operations. At that time, adherence to powerful battleships still continued to reign in the United States, England, and France. Aircraft carriers and naval aviation were assigned only an auxiliary role.

On 7 October 1941, 353 carrier-based aircraft that took off from six Japanese aircraft carriers in two hours destroyed almost the entire line Navy of the Americans at the main United States naval base in the Hawaiian Islands. As a result, the Japanese gained complete supremacy in the Pacific Ocean theater of military operations. The vast ocean region with its islands and archipelagoes supplied Japan with raw material resources for practically the entire war. This supremacy lasted until 1953 [as published], and in the battle of Midway, American carrier aviation in turn destroyed four of the most powerful Japanese aircraft carriers (Hiryu, Soryu, Kaga, and Akagi). In this battle, Japan was deprived of the cream of the flight personnel of carrier-based aviation of the navy. The Japanese were unable to replace the fatal losses before the end of the war—pilots who in several years had gained a wealth of experience in air battles under naval conditions (which requires special flight training).

Let us ask ourselves: Why was such a victory by the United States possible? By 1943, the Americans demonstrated their economic might to the world, and they undertook an unprecedented massive construction of aircraft carriers. During the years of the war, the United States built 46 squadrons and 111 convoy aircraft carriers. For comparison, Japan, with extreme effort, was able to build only nine squadron and six convoy aircraft carriers.

The lessons of the war in Korea (1950-1952) once again confirmed the high combat qualities of aircraft carriers, and the appearance and development of jet aviation intensified their combat might even more. From that time, aircraft carriers became a main component of surface forces of the United States and England.

Since that time, strategic tasks have been entrusted to aircraft carriers. They are ordered to deliver strikes, including nuclear strikes, on administrative industrial centers and ground-based facilities of an enemy. The U.S. Navy is persistently improving and developing methods for the operational use of aircraft carrier forces and tactics for the combat employment of carrier-based aircraft against ground and naval targets. With the development of intercontinental ballistic missiles and strategic aviation, the United States is transferring aircraft carriers to the general purposes inventory of the U.S. Navy, they represent the main strike component of the fleet, and at the same time they are a reserve of national strategic forces.

At this time, the United States is carrying out intensive construction of new large aircraft carriers of the Forrestal class, and subsequently of the Kitty Hawk class. They are given the designation strike, but at the present time they are called multipurpose. The first nuclear-powered aircraft carrier Enterprise was built in 1961 (displacement of about 90,000 tons, and 90-95 aircraft).

The U.S. Navy constantly maintains 14-16 strike (multipurpose) aircraft carriers at combat readiness, operating on a permanent basis in the inventory of operational fleets (6th and 7th) and in formations in all strategically important regions of the world's oceans (North Atlantic, Mediterranean Sea, Indian and Pacific oceans). These forces, depending on the operational situation, are redeployed to "hot" areas to reinforce ship groups and ground forces operating there.

The latest example is the participation of U.S. aircraft carriers in the UN-sanctioned attack on Iraq and in military operations in the Persian Gulf. Thus, the aircraft carrier forces of the U.S. Navy are highly combat ready forces—military-political pressure forces, but, frequently, forces for direct interference in the affairs of other states. And, it seems, that many of our expectations are futile that the United States will listen in Vienna or in Geneva to our "persuading" treaty negotiators, and that they will place the U.S. Navy in a rigid framework of treaty limitations. We should not even dream that the Americans, for example, will turn half of their aircraft carriers into "needles." And they can be understood in this—is it really possible to wreck such a splendidly equipped and streamlined naval machine? The American patriot—a majority of the taxpayers, in contrast to our disarmers, will not support petitioners for disarming the fleet, if those should suddenly appear in the United States. Indeed, they simply will be called state criminals who are working for the "Reds," and who want the downfall of the United States. Thus, the U.S. Navy was and, apparently, will remain the most prestigious and most government-guarded service of the armed forces in the foreseeable future.

Construction has been started in England on the new aircraft-carrying ships of the Invincible class, equipped

with multipurpose vertical takeoff and landing aircraft of the Harrier type. Three such ships have been entered into the naval inventory.

The inventory of the French Navy at the present time has two aircraft carriers—Clemenceau and Foch. Two more nuclear-powered aircraft carriers are being built.

Even such countries as Spain and India have aircraft carriers. Italy plans to build two aircraft carriers. It is just for us that this is impermissible.

Speaking for many years for a ban in our country on the construction of aircraft carriers (it cannot be said differently), our home-grown "peacemakers" literally do not see: We continue to be confronted with a powerful coalition of forces in the military-naval relations of states. To prevent and to maximally neutralize this kind of a threat, apparently, is possible only by creating an adequate danger to an enemy navy. In this world, only the strong are respected, those states that are capable of standing up for themselves.

Certain contemporary naval critics and "experts" quite seriously claim that in our defensive doctrine all of the tasks for the defense of the country from the sea can be resolved just with submarines, missile and torpedo boats, and small antisubmarine ships. We advise such "specialists," who do not cite contemporary research, to read at least the memoirs of a former people's commissar and minister of the navy, Fleet Admiral of the Soviet Navy N.G. Kuznetsov. Here is what he writes:

"It seems to me that it is incorrect to arrange the execution of all tasks at sea by orienting oneself only on a powerful submarine fleet. Only a sensible and scientifically based combination of different arms of naval forces and classes of ships can guarantee the execution of the tasks facing the navy."

And the admirers of the so-called "mosquito" (small ship) navy can be directed to the work of the theoretician with a world name, Admiral P. Barzho: "A fleet that does not have aircraft carriers at the present time is an incomplete fleet, inasmuch as it is capable of executing only tasks of a local nature."

The question of aircraft carrier construction was raised before the war by the High Command, the Main Staff of the Navy, and by prominent naval and military specialists.

Admiral N.G. Kuznetsov writes about these events this way: "It was decided to build battleships, heavy cruisers, and other classes of ships; that is, a large surface fleet. A large number of submarines were also built. And the construction of an aircraft carrier also was not excluded, but it was put off to the last year of the five-year plan... The shortcoming of prewar programs was the infatuation with battleships and heavy cruisers. Under the conditions of limited naval theaters and the resultant tasks, this was unjustified. Based on probable tasks, we felt a need for small aircraft carriers, without which even back then we could not operate destroyers and cruisers with great

success... But these especially were not paid attention to by the then people's commissariat of defense; and I.V. Stalin, who usually heeded the opinions of specialists, underestimated the role of aircraft carriers for some reason."

The attitude of N. Khrushchev to the fleet, and this is no secret to sailors of those years, was negative. Frankly speaking, even the prominent commander Marshal G. Zhukov, as the minister of defense, also underestimated the significance of the fleet.

With the appointment of A. Grechko as minister of defense, and later D. Ustinov, the attitude of the leadership of the Ministry of Defense and the General Staff to the needs of the fleet became more positive: In 1967, the Navy received the first specially constructed aircraft-carrying ship—the antisubmarine helicopter cruiser Moskva (16 helicopters), and in 1969, the second ship of this class, the Leningrad.

Further work in this direction was accomplished by the introduction into the Soviet Navy inventory of the first heavy aircraft-carrying cruiser Kiev, with vertical takeoff and landing aircraft and long-range antiship missiles. Another three ships of this class were built in the succeeding years—the Minsk, Novorossiysk, and Fleet Admiral of the Soviet Union S.G. Gorshkov.

And our latest achievement, the heavy aircraft-carrying cruiser, equipped with jump ramp takeoff [trampolinovyy vzlet] aircraft (SU-27 and MIG-29) and a complex of powerful antiship missiles. The first ship of this project, the Fleet Admiral of the Soviet Union N.G. Kuznetsov entered the Soviet Navy inventory in 1990. Perhaps only this ship more or less approximated the generally accepted class of aircraft carriers. But with what pangs it was born!

Undoubtedly an important, but hardly the main factor that held up the construction of the country's aircraft carriers for a long time was the high cost of their construction, and also the construction of a developed infrastructure for a system of basing in the fleets, without which a ship will simply get ruined in peacetime. Indeed, aircraft carriers are an expensive necessity, which economically strong naval powers can afford. But, as the English say, we are not so rich that we can buy cheap things. Especially as our naval specialists and foreign naval specialists have proved through special research based on an "efficiency-cost" criterion: The high cost of an aircraft carrier is more than justified.

The opponents of construction of Soviet aircraft carriers who have appeared in the pages of the press in recent years are basically people who are far from knowledgeable on military questions, but especially on naval questions. However, it is also difficult to suspect them of a profound knowledge of economic laws. Basically, people from the sidelines who are attracted to this theme are several people's deputies, Academician Arbatov, and also several authors. Until recently, no one from among

the navy people have broached this subject. But "holes" have also appeared here today.

Intermingled with the destinies of navy people, that is the story of aircraft carrier construction in our Fatherland in a very general way.

FROM THE EDITOR. When this material was being prepared for the press, a letter arrived at the editorial office from a group of employees of the Ministry of the Shipbuilding Industry and ship designers of the Nevskiy project-design bureau. The question raised in them is the fate of two aircraft-carrying cruisers whose construction is being completed in Nikolayev. Recently, and particularly after the declaration of sovereignty by the Ukraine, Yu.

Makarov, the director of a Black Sea shipbuilding plant, as the authors report, abruptly changed his attitude toward the Navy. It is planned to stop the construction of aircraft-carrying ships, and to fulfill orders of foreign firms.

We contacted Rear Admiral V. Polenskiy, chief of the Main Directorate of Shipbuilding of the Navy. He confirmed the information that arrived at the editorial office. The position of the Main Directorate of Shipbuilding of the Navy: The hulls of these ships must be preserved and mothballed. It seems that a decision on such a question is within the jurisdiction of the higher organs of state authority.

Yeltsin Adviser on Military Reform

92UM0179A Moscow PRAVDA in Russian
22 Nov 91 pp 1, 3

[Interview with Major General V.I. Samoylov, candidate of technical sciences and chief of the Military Organizational Development Department of the RSFSR State Defense Counselor's Service, conducted by G. Ivanov; date and place not given: "Let the Army Be the Army"]

[Text]

[Ivanov] What brought about the need for military reform?

[Samoylov] The cardinal changes in our life could not have failed and cannot fail to also affect the army, which for several years now has been under the fire of the most savage criticism in the mass media, and, however bitter it is for me, a military man, to say this, it has been largely justified. For decades the army was protected against glasnost, there was the severest censorship of any material on army life or its problems, and only panegyrics were allowed into the press, and as a rule the truth was concealed. This led the army to many negative processes and phenomena.

The legal basis of the army's existence were the Law on General Military Service, always poor in content and far from perfect, and the corresponding line in the Constitution, and that was it. Unfortunately we still have no law on the army on which all provisions and regulations pertaining to the organization of military service might be based.

[Ivanov] Consequently there has been an army de facto, but not de jure?

[Samoylov] Absolutely right! Formalities seemingly were observed, but lawlessness and voluntarism actually held sway.

The purpose of the army is protection of the state against encroachments on its sovereignty and the integrity of its borders, for which there are corresponding forces—strategic, ground, air, naval. Is that it? Not likely.... We are the sole army in the world which does not even know precisely how many types of "forces" it has: There are football and hockey and gymnastic and wrestling and shooting and tourist forces. I am far from the first to have engaged in this conversation, but there has been no progress whatsoever. The manual clearly names the army subdivisions—squad, platoon, company, battalion; nowhere does it record the right to the appearance of such a subdivision as, for example, "soccer team" or "hockey team," whose chiefs carry the rank of colonel.

I greatly respect Vladislav Tretyak, but I somehow cannot come to terms with the fact that he reached the rank of major in the hockey nets. I bow to the talent of the soccer players of the Army Central Sports Club, who did the double, but it should be embarrassing to them also, I would have thought, that the number of stars on

their shoulder boards is directly dependent on how they handle a ball. It is customary to believe that they are defending the honor of the army, but please, since when has the army's honor depended on the number of goals scored or allowed? We have tens of thousands of homeless officers, and a beardless youth is presented with his lieutenant's stripes and keys to an apartment. And all this out of the military budget.

[Ivanov] Is there such a thing?

[Samoylov] This question is of interest to many people, but no one can give a precise answer, not even the country's president, I believe. The West finds this incomprehensible, it thinks that we are simply concealing everything. This was the viewpoint of our American colleagues at a recent meeting with a Soviet military delegation in the United States. They presented us with the condition: "This is our military budget; give us yours, otherwise our contacts are pointless." I had an opportunity to speak and to describe an anecdotal situation which I encountered when working on the structure of the Russian Defense Committee. A military-economic command with a staff of 30-35 persons was envisaged. Inasmuch as everything had to be agreed in the Ministry of Finance, that is where we went. There they put me to shame: What, so many freeloaders? Here in the ministry the entire military budget is totaled by four persons!

The Americans reeled in astonishment: With them the military budget is handled by several institutions.

We undermined the country's economy by a military-strategic doctrine which proclaimed that the world consisted only of us and our enemies intent on wiping us from the face of the earth. There was seen to be just one solution: the main outlays—for defense. The military-industrial complex had the best of everything, including personnel with enhanced wages, and ministers of the military-industrial complex considered it beneath their dignity to attend meetings of the Council of Ministers, and purely civilian sectors had to make do in fact with handouts from the military-industrial complex. The former doctrine, at whose implantation D.F. Ustinov was preeminently successful, also dictated the need for the maintenance of a huge army engaged to provide defense from sea to sea. But let us be frank: There was frequently an imitation of military service in the army. In the two years soldiers would build storage facilities and fences and paint, dig, and attend political studies—disproportionately little time being spent on the military aspect proper; that is, preparation for defense of the fatherland. The strength levels of the military construction units became swollen—extremely cheap manpower was used to put up civilian facilities, the number and location of which were determined in the Politburo even. The army was turned into a darned needle for the tears caused by mismanagement: It was thrown into timber procurement and potato harvesting and cabbage pickling.

[Ivanov] What are the main directions of the military reform?

[Samoylov] We need first and foremost to devise a new military doctrine of the prevention of war and create a military-political union of sovereign states based on the principles of collective security. Second, military-economic reform based on the actual determination of the state military budget. The time has come to reform the armed forces in such a way that quality prevails over quantity. It is these directions which are being studied and detailed by the USSR State Council Committee for Preparation and Implementation of Military Reform. The committee is led by General of the Army K. Kobets.

[Ivanov] Is reform due?

[Samoylov] Yes, if not to say past due. But I would like to emphasize that all that is outdated and rotten has discredited itself, only not the authority of service of a just cause, which I saw for myself as I spent those three memorable August days in the "White House".

The August events pulled down the military-political structure, whose demolition would have taken a further 10 years or so, and the army became departified. Were we to count up the cost to us of the monumental slogans of the "Glory to Us!" type, the empty visual agitation, the compulsory Lenin rooms, the publication of wall newspapers and outstanding performance (!) sheets, the political training hours, the abstracting of the "works" of senile leaders—all this was simply beating the air when behind the quantity of "activities" the soul of man, man himself, remained out of the picture!

The political authorities have been eliminated, but this does not mean that no one will be involved in questions of education. The appropriate structures will emerge.

An extremely important component of the reform is civilian control of the military budget and the army. It should not be interpreted simplistically to the effect that civilians would interfere in each step of a commander of any rank: This would lead to the elimination of the army as such. Figuratively speaking, the people, as the taxpayer, hire the army and have the right to monitor the way in which their money is spent. Everything in military organizational development should proceed on behalf of man.

The relations of the army and the military-industrial complex, which have not been built on a partnership basis, are in need of a fundamental change also. No defense minister of ours has been a purchaser of military equipment, he has merely accepted what has been manufactured, regardless of the extent to which this corresponded to the modern level of engineering.

[Ivanov] Will the armed forces be reduced in size?

[Samoylov] Undoubtedly. Only what is essential for fulfillment of the requirements of collective security will

remain. Why have military construction forces if it is more advantageous to hook up with a contractor? We have abandoned obsolete military-strategic doctrine, and it has transpired that we do not need so many tanks and other equipment; consequently, their maintenance personnel are being reduced also. And we will not be worth a damn unless we display concern for the social protection of yesterday's career serviceman and prepare him for the transition to a new, civilian, capacity. It is not only a question of vocational reorientation but also of each person who takes off his shoulder boards having the threshold capital enabling him to resolve the housing problem and opt for work for which he has an aptitude.

[Ivanov] Fears that the army could become a double-exit yard are being expressed.

[Samoylov] This will not happen. Implementation of the reform will lead to a sharp increase in servicemen's income. Army service will be both prestigious and profitable, and then let well enough alone. But the corresponding physical plant is also essential for this, which populists of all stripes are simply unwilling to understand. They started the debate about the fact that we need a professional army. But what is ours, an army of dilettantes? For men on extended service and for warrant officers and for commissioned officers—a profession. But it is they who constitute the backbone of the army.

[Ivanov] With which servicemen of the U.S. Army could you personally be compared in terms of income?

[Samoylov] I would rather you had not asked this question: with the lowest-level reservist or with someone in receipt of unemployment benefits.

[Ivanov] What does a commander in the West of equal position to you have?

[Samoylov] It is clear from the answer to the previous question: heaven and earth. And in this connection I have to give our officers their due: Although ours have much worse material conditions, they are ahead in terms of erudition and cultural level. And were they to be given the corresponding social benefits, well you could with them move mountains!

[Ivanov] What are the stages of realization of the reform?

[Samoylov] What I have been speaking about is still part of the draft, which is being completed, after which it will be presented to the president and the State Council. Elaboration of the concept of military reform will take about four months, and then the finishing touches will be put to it with regard for the observations of the USSR Supreme Soviet. It is contemplated accomplishing the reform, with regard for the necessary adjustments, within 7-10 years. But the figure-skating colonels, shooting generals, goalkeeper majors, and sprinter captains will disappear much sooner. The army will be an army and only an army!

Justice Official on Housing Shortage Facing Servicemen

92UM0130A Moscow KRASNAYA ZVEZDA in Russian
13 Nov 91 First edition p 2

[Interview with Lieutenant-Colonel of Justice Nikolay Ivanovich Chumak of the USSR Ministry of Defense Main Quarters and Utilities Directorate by KRASNAYA ZVEZDA Correspondent Major I. Ivanyuk: "Where is the Solution to the Apartment Impasse? Monitoring the Housing Problem"]

[Text] The lack of social protection of servicemen and their families is most keenly felt as soon as you begin to talk about housing. You rarely meet a lawyer among the workers of the USSR Ministry of Defense Main Quarters and Utilities Directorate [GlavKEU] and therefore they often use square meters and capital investment sums when they discuss this problem. But how does a lawyer assess the current housing situation?

Our interlocutor is Lieutenant-Colonel of Justice N. Chumak. He has been working at the USSR Ministry of Defense Main Quarters and Utilities Directorate for the last six months.

[Ivanyuk] Nikolay Ivanovich, let us take this postulate as a point of departure for our conversation: the state must guarantee a serviceman and his family a roof over their heads. And proceeding from this, maybe to start you will answer the most simple question: right now, how many people in the army and navy have been deprived of this roof?

[Chumak] I accept this approach to the discussion of the apartment problem. But as for the question, it seems that it is not as simple to answer due to the inadequacy of the accounting system which does not encompass single servicemen, wives, and certain other categories.

There are 192,000 of them according to the latest data which all branches of the Armed Forces submitted to GlavKEU with the exception of the PVO [Air Defense] troops. Although I personally doubt the reliability of this figure. A year ago, these same totals were 190,000. And if you consider the intensive withdrawal of troops from abroad and the drastic reduction of the issuance of living area to servicemen by local Soviets, including shared construction, the accelerated resettlement from restricted military garrisons, and other factors, I think my doubts will become understandable.

[Ivanyuk] So, in your opinion, everyone is at fault? This system which has attempted to consider everything and to distribute housing but could not for the lack of a legal basis? KRASNAYA ZVEZDA has already written about the fact that orders and directives on procedures for distributing housing bring about housing impasses like, by way of illustration, Minister of Defense Order No. 285 that was issued in 1975 and has ceased to exist.

[Chumak] Let us begin with the fact that everything that we are talking about is closely interrelated. The orders—

both 285 and others—did not emerge in and of themselves. Why are they not "unsinkable," although this is not the first year that they have been subjected to criticism? Well because they subscribe to the command-administrative system that we have not rid ourselves of. And, say, discrimination in housing issues of naval and army warrant officers and extended service servicemen was reinforced by CPSU Central Committee and USSR Council of Ministers Joint Resolution No. 1131 dated December 8, 1980 which also has not yet been repealed. The procedures that existed permitted commanders and chiefs of various ranks to take advantage of the vagueness of legal standards and to assign apartments at their discretion. It became customary, and servicemen until now perceive it as proper, that some commander or other receives an apartment while bypassing the line. And how many apartments are assigned under the table ["nalevo"] by way of so-called mutual accounting with other organizations! This is still a closely-held secret for broad layers of army society.

[Ivanyuk] Nikolay Ivanovich, excuse me, but who, other than quarters and utilities organs, should have taken control of the distribution of housing if it was damaging from the legal point of view?

[Chumak] I think that even if all perfectly honest people without exception worked in our services, that would not change anything. While transferring to service in GlavKEU from military procurator organs, I began to enthusiastically use the experience I have accumulated in investigatory work and during inspections of the appropriateness of distribution and utilization of housing locally. I ending up discovering a multitude of violations and abuses. But our system is such that the effect of this work, as a rule, all came to naught. It is practically impossible to relocate those people to whom housing was offered without grounds, existing legislation prevents this. By the time violations committed by people have been discovered, the guilty parties have either been released into the reserve or they have departed for a new duty location. They frequently take advantage of the sponsorship of highly placed commanders and they commit violations in accordance with the orders of these same commanders. Of course, we sometimes manage to punish violators but only... in a disciplinary manner. And, ultimately, the people who suffer are those who are left without housing.

I am personally convinced that a system built on a shortage never should have let a tempting morsel like housing slip out of its hands. Something else puts me on guard: the RSFSR Ministry of the Economy and Forecasting has already developed draft procedures of a new structure for providing housing to servicemen that essentially does not contain anything new and once again dooms many of them to destitution and the absence of rights.

[Ivanyuk] Do you have any specific proposals?

[Chumak] I prepared them two years ago. Time has been largely wasted. I think that we need to resolve the housing problems of those people who serve and of those who have already been released, as they say, simultaneously. In accordance with the well-known USSR government resolution, servicemen who have been released must be provided with housing at the expense of ispolkoms of local Soviets no later than three months after they have been placed on the list. But actually this procedure is never complied with anywhere. Yes and it cannot be complied with since it is absurd by its very nature.

Let us imagine ourselves in the position of a specific ispolkom chairman. Let us assume that he, from a sense of compassion toward former servicemen and to the detriment of "his own" people on the housing list who have at times been waiting for decades for the improvement of their living conditions, will provide housing to a dozen arriving families within the prescribed three-month period. It is easy to foresee that next year hundreds, and maybe even thousands of retirees who will soon find out that there are no housing problems in some city, will turn to this ispolkom. Furthermore, the government has not ascertained responsibility, and it also cannot, for local organs of power who do not carry out this resolution. That is, the waiting period for housing for so-called people with a priority can stretch out for three, five, or more years.

[Ivanyuk] Let us attempt to imagine a mechanism which could realize your idea. How do you provide people with the guaranteed housing that you initially talked about?

[Chumak] We can manage to do this in the event that servicemen's housing problems are resolved long before their release into the reserves or their retirement. During their entire period of service, they must be provided with service housing space that has been freed up by a transfer to another duty location or by a release into the reserve. With time, this would permit us to consolidate a certain number of apartments for garrisons and exclude many abuses. In so doing, the state would be obliged to guarantee to each serviceman who has served, say, 10 years, the right to obtain an apartment at a housing cooperative or a housing construction cooperative or for construction (acquisition) of an individual home at the

selected populated area. The cost-free financial assistance provided during this must total, in my opinion, from 25 to 100 percent of the cost of the guaranteed minimum housing depending on years of service. We can also approach differentially the size of the plot of land allotted for construction.

People can object because they say that servicemen will not be able to become involved with the construction of individual homes due to the shortage of building materials and for other reasons. But for a beginning, they must be afforded the right to choose and the opportunity to build. I think that we could also solve the problem of supplying building materials if we wanted to. At least until quite recently at the GlavKEU when it had the money, representatives of local governments and people's deputies from the republics, where there was a surplus of labor resources, also frequently proposed joining forces to create building industry enterprises and later to erect homes on this basis. But all of these proposals were smashed against a bureaucratic wall of the failure to understand.

[Ivanyuk] Nikolay Ivanovich, but how do you actually guarantee servicemen the rights that you are talking about? Right now they have many benefits on paper....

[Chumak] I unambiguously understand "guarantee." In the event of the violation of these or other rights, the victim must have the juridical capability for his defense in a judicial procedure and individuals who have violated the law must be held accountable.

[Ivanyuk] Right now a housing market is being born and privatization has already begun in some places. So maybe we need to also provide servicemen with the opportunity to obtain housing in the form of property?

[Chumak] Servicemen, just like other citizens, already right now have the right according to the law to privatize the apartment they occupy under the condition that it is not located on a restricted or isolated military garrison or that other circumstances prescribed by law do not prevent this. On the other hand, much here still remains unclear. I personally think that the Ministry of Defense will not be capable of providing a man with an apartment twice—there where he privatizes it and there at the location to which he is transferred next. Certainly here not only quarters and utilities organs but also the servicemen themselves need to determine what to do, especially if the serviceman continues to serve.

Latvian Alternative Service Established

92UN0377C Riga DIENA in Russian 10 Oct 91 p 1

[Report by Ilmars Punka: "Those Choosing Alternative Service Will Be Able To Transfer to State Service"]

[Text] Riga, 9 October—Young men serving an alternative service will be able to transfer to state service. The Latvian Republic Supreme Council made appropriate amendments to the resolution on the Law on State Service that will be coming into effect. This has been reported to journalists today by Supreme Council Deputies M. Stepichev and A. Ligotnis, as well as A. Stankevica, leader of the League of Latvian Women.

This decision of the Latvian Republic Supreme Council has been prompted by the situation that emerged when, in response to the Department of Public Security and the Ministry of Internal Affairs request for 2,500 draftees, only 500 could be sent. "This happened because people may be drafted for state service when they reach the age of 19; most young men of that age are either serving an alternative service or are drafted into the ranks of the USSR Armed Forces." A. Ligotnis rejected allegations that all permanent residents of Latvia are called up for state service, and thus a citizenship zero option is implemented. A. Ligotnis: "This is not true, since at this

point the distinction between Latvian Republic citizens and all others is not codified anywhere. Besides, we are not promising anybody that this service will provide grounds for receiving citizenship."

A. Stankevica expressed satisfaction with the progress of demobilization from the USSR Army: "It is going better than we had hoped." However, there are incidents when non-Latvians drafted to serve on Latvian territory are not being let go. In some places those who have only a couple of months left to serve are subjected to abuse. M. Stepichev sees these incidents as an initiative of local officers rather than a widespread phenomenon. A. Ligotnis reported that nobody had seen M. Gorbachev's decree on demobilization of draftees from the Baltic States, and that this information had been received only through the mass media.

M. Stepichev reported that the Latvian Republic Ministry of Defense will be created before the end of the month, when the concept of state defense is expected to be ready as well. The border troops uniform will be different from the former uniform of the USSR Border Troops; their dress uniform will resemble the one of prewar Latvia. M. Stepichev: "We want to make the border control service a prestigious one, so that young men will want to be there."

Air Defense Officers on Implications of Desert Storm

92UM0138A Moscow VESTNIK
PROTIVOVOZDUSHNOY OBORONY in Russian
No 9, Sep 91 pp 69-71

[Article by Lieutenant-Colonel A. Manachinskiy and Lieutenant-Colonel V. Chumak under the rubric "In Foreign Armies": "The Echo of Desert Storm"*)]

[Text] One more war has ended, adding another page to history. A serious analysis of the war lies ahead, one requiring much clarification and verification of the available information. Even now, however, despite the distortions, deficiencies and contradictions in the actual information typical of reports coming from a theater of military operations, the first results can be summed up and a number of indisputable conclusions can be drawn.

The most substantial conclusion from the conflict is that justice must be restored primarily by peaceful ways and means. In this case the UN and its Security Council, despite all their efforts, do not appear to have gone far enough to achieve a peaceful settlement of the conflict. Unfortunately, traditional reliance on military force got the upper hand. Major damage was inflicted upon the "common home" as a result. We feel that serious thought should therefore be given to the establishment of a universal system of reliable guarantees for preventing all forms of aggression, occupation and annexation at their very inception. Otherwise the involvement of states in armed conflicts could become a permanent process and military conquest could become a constant in international life.

Events in the Persian Gulf showed us that war now costs mankind too dearly. Take, for example, the unpredictable ecological consequences, the enormous quantities of spilled and burning oil. And the indirect costs of the war also shock the imagination. According to official information, for example, the entire Operation Desert Storm cost the United States 47.5 billion dollars. It cost the allies even more. They have committed themselves to allocate 54.5 billion dollars to cover the American outlays. When we add to this the losses suffered by the victim, Kuwait, and the "punished" aggressor, Iraq, it becomes apparent that the military route to the resolution of international problems is not the least expensive.

Despite significant success achieved in recent years in mastering the new political thinking, in the situation of an imperfect world order a state needs a well-outfitted armed force as never before. Thanks primarily to the victory of its weaponry in the recent Near East war, the USA (and its forces formed the foundation of the multinational force) has derived and is still deriving a large number of dividends from that victory.

In the first place, one should expect an increase in sales of American weapons. Foreign experts calculate that the proceeds could amount to 38 billion dollars, which is approximately three times the 1989 figure. The NEW

YORK TIMES openly states in an editorial that these goods are moving well due to the impressive advertising produced by the Persian Gulf war.

In the second place, the United States has enhanced its political prestige in the international arena and reinforced its control over the strategically important oil region for a long time to come.

In the third place, as a right of the victor American business has obtained approximately three quarters of the total of the multimillion-dollar contracts for restoring devastated Kuwait: from rebuilding the infrastructure to repairing the oil wells, which could generate an income on the order of six billion dollars.

Also significant are the purely military results of the conflict, which, according to the experts, was the largest operation in the scope of its military operations since World War II. They include the following:

1. An analysis of the combat operations conducted by the multinational force shows that this was the first test of the concept of the AirLand operation, first and foremost the component consisting of an airborne offensive operation. The air force used its modern weapons and accomplished all of its missions, now considered "classic," of gaining air supremacy, isolating the area of combat operations and providing direct air support.

Judging from the comments of military experts in the foreign press, the results of implementing the basic principles of the theory of the conduct of modern operations by NATO forces confirmed their promise. At the same time certain defects were revealed, and there is every indication that the USA intends to set about rectifying them in the immediate future. The antimissile defenses for the forces were acknowledged to be inadequately effective. Although the debut of the basic component of the antimissile system currently being developed, the Patriot SAM system, was fairly impressive, the outlay of these antiaircraft guided missiles was deemed to be unacceptably large (from two to ten of the missiles, costing 500,000 dollars each, were required to destroy one Scud missile costing 300,000 dollars).** The Patriot will of course therefore be modernized to enhance the probability of destroying a ballistic target with a single missile.

2. Airborne weapons affirmed their leading and ever-growing role in modern warfare. They accounted for more than 30% of enemy losses on the ground, broke the enemy's will actively to resist in those Iraqi soldiers remaining alive following the air strikes, totally disorganized the system of command and control of troops and weapons, and disrupted communications.

Along with this, by charging the grouping's air component with the main mission of achieving the objectives of the operation, the allied command succeeded in limiting losses of its own ground forces (approximately one American was killed for every thousand Iraqis to die). Aircraft of the multinational force flew more than

110,000 combat sorties during the combat operations, pounding Iraq with a quantity of bombs and missiles the combined explosive force of which is comparable to that of the nuclear bomb dropped on Hiroshima by the Americans in 1945. The allies lost only 27 aircraft in the process.

3. Automated weapons and combat support systems are playing an ever-increasing role in modern warfare. They can be integrated into a single system of reconnaissance, command and control. This was convincingly demonstrated by the success achieved in Operation Desert Storm. Furthermore, the components of such systems deployed on airborne carriers (the E-3A, E-8A and TP-1 aircraft) and on space-based facilities form their basis. Incidentally, the latter made such a good showing that, according to the foreign press, a number of nations have already submitted orders for their acquisition and employment.

The important role which electronic warfare assets have begun to play deserves special mention. The results of their employment in the Persian Gulf region makes it understandable why they are receiving so much attention abroad and is further proof of the validity of designating electronic warfare as a separate form of combat operations.

4. The catastrophic results of the war for Iraq, one which it lost in a single operation, is primarily a result of its inadequate concern for its own air defenses and its underestimation of the role of air defenses in the modern situation. This has made the following conclusions fairly obvious.

In the first place, a considerable part of Iraq's anti-aircraft systems, particularly its missile systems, had already been well studied by the enemy during previous armed conflicts, beginning with the war in Vietnam and ending with a series of Near East conflicts, which made it considerably easier to combat them. At the same time there was a shortage of facilities capable of functioning in a situation of powerful jamming and effectively combatting the new types of SVN [not further identified] such as the F-117 Stealth fighter-bomber, cruise missiles and the destructive components of high-precision weapons (antiradar missiles, guided aerial bombs).

In the second place, the technical improvement of anti-aircraft weapons is becoming extremely important, although this factor in and of itself did not provide the Iraqi side with a reliable defense. The reason for this apparently lies elsewhere. Reliable protection against air strikes can not be achieved simply by massing air defense assets. There must be competent organization of these assets and control of their combat employment. Although Iraq had an impressive arsenal of various types of anti-aircraft systems, it did not accomplish this mission. There is indirect confirmation of this by the American experts, who were extremely surprised at the low level of losses of their own aircraft (fewer than 1%)

compared with their own forecasts that Iraq should be able to destroy up to 10% of the multinational force's aircraft.

In the third place, the competence of members of the air defense subunits is important. From all indications, the professionalism and skills of the Iraqi servicemen left something to be desired. According to reports in the foreign press, drills were not conducted with the anti-aircraft and radar crews, and a poor knowledge of the equipment and weapons prevented them from maintaining their combat readiness at the required level. For these same reasons the Iraqis were unable to master the use of the Hawk anti-aircraft missile systems captured in Kuwait, and these were never used for repelling air strikes. Nor were the Iraqis able to repair their own damaged facilities and return them to action.

The future victors behaved entirely differently. Immediately after U.S. ground forces were moved into the area of impending combat operations (and this could be seen on television screens), they began practicing combat operations in desert conditions and in a situation involving the use of toxic substances. Particular attention was given to the organization of close interaction with allied troops and with aircraft. The American pilots practiced techniques of low-altitude flight over the desert, studied the peculiarities of Iraq's air defense system, learned methods of penetrating it and performed training flights to strike at ground targets, including night flights. All of this bore fruit during the war.

In the fourth place, the evolution of the enemy's air tactics was not matched by corresponding changes in the methods of combat employment of the Iraqi forces and air defense assets. Nor was there an attempt to transform the rigidly centralized system of command, control and interaction, which had demonstrated its inadequacy, to alter the standard arrangement of the weapon launchers or to adopt the tactic of dynamically switching positions and setting up ambushes. Positive results were achieved by deceiving the enemy with inflatable mock-ups of air defense weapons and by heavily fortifying the positions.

5. Like all previous armed conflicts, the USA used Operation Desert Storm as a large range for testing new weapon systems and models and practicing tactics for employing them. The only difference perhaps was the fact that more of these tests were conducted than ever before and they involved mainly the air component of the American armed forces.

One could list among the successful "examples" the use of the F-117 Stealth fighter-bomber in the war; a number of the components of high-precision airborne weapon systems and subsystems for reconnaissance, command and control, and guidance; cruise missiles, the massive employment of which earned high marks from the experts; the Patriot antimissile system, used for the first time for combatting ballistic missiles in the air; highly

integrated multilevel systems of reconnaissance, command and control using artificial earth satellites and airborne stations for gathering, processing and distributing information.

In conclusion, we would note that obviously not all of these conclusions might appear to be indisputable. Imprecisions are perfectly probable for the reasons already mentioned. One thing is unquestionably, however: that despite all the positive changes currently occurring in the world, a state's armed forces must conform to the times. That is, they must be modern.

Footnotes

*Based on information published in the foreign press. Conclusion (see issues 7 and 8 for preceding parts).

**According to the magazine ARMY TIMES the probability of destroying a Scud missile was 0.5 with a single Patriot SAM missile, 0.98 with two, although this possibility could only be achieved with the firing of six SAMs.

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Mutual Training Program for Soviet, French Officers Planned

PM1811101591 Moscow KRASNAYA ZVEZDA
in Russian 15 Nov 91 First Edition p 3

[Response from French Embassy in USSR to reader's letter under the "From Competent Sources" rubric: "Who Will Go to France?"; first paragraph is reader's letter]

[Text] "The press has reported that an agreement has been reached between the USSR and France on reciprocal training tours for young officers. Please speak about this in greater detail. V. Semenov, Sevastopol."

The possibility of an exchange of young officers for training tours was examined during the official visit of French Defense Minister P. Joxe to the USSR in September of this year. Then this question was discussed with Admiral J. Lanxade, chief of staff of the French Armed Forces, during the official visit to France of Army General V. Lobov, chief of the USSR Armed Forces General Staff and USSR first deputy defense minister.

The two sides worked out the principles of such exchanges. They will be carried out for a period of two or three months. Trainees will study in schools at various levels or serve in subunits in the corresponding branch of the armed forces. They will live and work together with servicemen of the host side. The purpose of the training tours is to study everyday military language and familiarize themselves with military life in the other country.

Talks on this question are continuing at present. The number of trainees and the practical terms of the exchange in 1992 are being decided.

This response was obtained from the French Embassy in the USSR.

Soviet Factors on European Security Structures Viewed

92UM0164A Moscow KRASNAYA ZVEZDA in Russian
22 Nov 91 First edition p 3

[Interview with P. Lange, associate at the Institute for the Study of International Problems, by Colonel V. Markushin; "Ambitions and Experience"]

[Text] Doctor Pierre Lange is a well-known analyst in Germany and a leading associate at the Institute for the Study of International Problems. The German Committee for European Security recently arranged for him to address the officers at the Wunsdorf Garrison. Doctor Lange was later interviewed by a KRASNAYA ZVEZDA correspondent.

[Markushin] Doctor Lange, you began your discussion of European security with the centrifugal trends in the Soviet Union. Do you consider this to be the main factor in the current situation?

[Lange] Yes, the transformation of the USSR, with its enormous military capability, is now assuming crucial importance for a future collective security structure. What do we have? A monolithic structure is being replaced by federal components. Naturally, they are developing in different ways and there are conflicts, which is complicating the entire course of events. Including, of course, the tense area of arms control. The danger here lies in the fact that the new sovereign entities lack experience in this area. But the preconditions exist for political ambitions to get the upper hand at some point, and there can be a temptation to abuse military power. Yugoslavia's bitter experience in this respect can serve as a serious warning. It convincingly demonstrates the direct dependence of security upon the overcoming of economic and social difficulties, the level of maturity of the democratic awareness of various regions and the state of the army, a prominent social force.

[Markushin] Only yesterday we were making East-West relations the cornerstone of universal security. It would appear, however, that we have been freed of the antagonisms separating us....

[Lange] There is no doubt about that. We have indeed ended the confrontation. But this has caught us by surprise in a certain sense. It has become necessary drastically to reorient military policy, and this can clearly not be easy. The main difficulty is one of how capable we all prove to be of ensuring our collective security in the coming, new era. Today, the main components of policy are free of ideological strata, and coinciding assessments of security for the two sides predominate. If one can even still speak of sides at all. We can see that national movements in East Europe and

the Soviet Union are prevailing over integrative trends, however, which are more in keeping with the demands of the times.

[Markushin] The differences in the economic and military capabilities of the new sovereign states and their geographic situations are also an extremely significant factor.

[Lange] Naturally. The capabilities and the political traditions of Russia, let us say, make it better prepared than its neighbors for pursuing global objectives. The Ukraine cannot be compared with Moldova. The Central Asian and Transcaucasus republics are contiguous to a very specific region to the south, and this accounts for their specific strategic importance.

[Markushin] The situation with NATO is similar, is it not?

[Lange] There is a certain similarity, of course. The United States of America forms the nucleus. Then there are powers like Great Britain and France which also possess enormous strategic power. And finally there are a number of countries with limited capabilities pursuing primarily narrow regional objectives. Based on these similarities one can understand statements made in our country about the possibility or even the expediency of establishing relations among the republics based on principles adopted in the North Atlantic bloc.

[Markushin] NATO is advertised today as a model interstate mechanism which functions uninterruptedly despite disagreements and those same ambitions. Is this a confirmation of the conclusive significance of the experience, interdependence, or something else?

[Lange] The Western alliance has acquired a great deal of experience in overcoming disagreements. You will recall that the FRG insisted on the right to participate in the designation of possible future nuclear targets. This was one of the reasons why the nuclear planning group was set up. France, with its desire not to be bound by the interests of "others" is another graphic example. In order for such relations to develop among your republics, it is essential to make their role in the conduct of security policy absolutely clear. You are all firmly linked together both economically and militarily. I make this assertion despite much talk about the "disintegration" of the USSR. It is important, however, to satisfy the desire of each sovereign republic to have its influential say in deciding fundamental issues. Including, of course, such matters as the planning and the designation of objectives of the military capability.

[Markushin] In the West they are afraid of the spread of the USSR's nuclear capability. Do you share this fear?

[Lange] Not entirely. Desire alone is not enough to become a nuclear power. In general, however, the problem of nonproliferation of nuclear weapons in conjunction with the current process in the Soviet Union does exist. And it would have to receive close attention from the world community.

Irkutsk Aviation Plant to Expand Consumer Goods Production

924A0267A Moscow *DELOVOY MIR* in Russian
11 Sep 91 p 4

[Interview with V. Markeyev, deputy general director of the Irkutsk Aircraft Production Association for foreign economic relations and consumer goods, by Aleksandr Kotov under "Conversion" rubric: "Better to Buy an Aircraft..."]

[Text] Even in the most "secret" years, it was not difficult to guess that they were either repairing or building military aircraft near Irkutsk: thunderous objects cut through the skies over Irkutsk at extremely low altitudes with the immutability of the rising and setting of the sun. All sorts of flasks and containers for berries and other fruits of spontaneous conversion have given a good idea of the strong and light metals that were used in this "box." I also saw a tape recorder that was almost entirely made from components taken out of the aircraft plant. In short, ask the KGB people there what they were and are receiving their money for and they themselves will not know....

Today the Irkutsk Aircraft Production Association produces not only jet aircraft but also more than 100 kinds of consumer goods. They include children's toys, aluminum dishes, washboards, choppers, back packs, tents, delta planes, dishwashing machines for cafes and dining rooms, and non-series products ordered by medical and transport people and agricultural workers. Their annual production amounts to 40 million rubles [R].

The aircraft plant began to produce civilian goods soon after the war: beds, cots, kerosene stoves, and sleds. At that time, however, their share in the total volume of output produced was minimal. It may even be said that the situation is analogous today but this time it is the mirror image. The defense theme has now been reduced to a minimum and there is every reason to speak of its further reduction in the future. Everything depends upon the main military department—whether or not it will have the funds and resources. For the time being, the plans at the plant have been drawn up taking into account last year's number of produced aircraft. So that without them it will be difficult for the production association despite the 100 other kinds of goods. After all, the capacities and equipment are intended for fighters and not for pots and pans.

As they said at the plant, the way out of this situation may be a transport aircraft or a plane for civilian aviation. By the way, one YaK-112 is already being prepared for series production. It was presented to us in the country not long ago and literally just two months ago it received positive comments at the exhibition in Le Bourget. This is a four-place business aircraft that is suitable for practically everything: for transporting freight, putting out fires, geological exploration, and for medical people. It is not impossible that private persons will also be able to purchase the YaK-112. But....

This aircraft will not save us. It is relatively inexpensive and very many of them will have to be built, says V. Markeyev, deputy general director of the aviation association for foreign economic relations and consumer goods. It will only be part of the load. To maintain the aircraft plant as it is, it is necessary to leave all of its existing subdivisions as they were, beginning with the air field and ending with finished output. For the YaK-112, we will not need the mass of people now working at test stations and on air field equipment. And all of them are highly skilled personnel whose training took years.

[Kotov] But conversion, Valeriy Ivanovich, is gaining strength and it is entirely possible that in the very near future you will not have any defense orders at all.

[Markeyev] This is why we are in a hurry and are searching. We want, for example, to organize a joint Soviet-Swiss enterprise for the production of the amphibious aircraft A-200. This is also a multipurpose aircraft but the first modification that we will undertake will be for fire extinguishing. The national economy has a very great need for such aircraft. The A-200 is a completely new design. It is capable of taking up water while gliding, that is, without landing. Starting next year, we are preparing to issue a two-place motorized delta plane. Preparations are now under way for its production.

[Kotov] Why did you turn to superlight planes? Or is it simpler to employ capacities in this way?

[Markeyev] No, they have no advantage whatsoever over other technology for a reorganization of basic production. The fact is that such aircraft are essential and who will build them if not an aircraft plant? I was recently in the United States, where at any large airport there are hundreds of private helicopters and airplanes. There they fly on business or for recreation and even to cafes—no problem. As light planes, they have elementary rules and elementary controls. For our YaK-112, the cabin will also be like that of the "Zhiguli" with pretty much the same kind of instrument panel. In addition, the grading of "amateur pilot of the USSR" was finally introduced here as well last year. In America and Canada, they think that for nearly inaccessible places such as northern Canada it is better to buy an airplane and build a small landing field 60 or 70 meters long than to bring kilometers of roads across swamps and the taiga.

[Kotov] Do you think that the demand will be high and stable?

[Markeyev] It is for the time being. It is another matter that there are now many aircraft plants producing delta planes and small aircraft. So that if nothing happens and all of the enterprises develop, after a certain time the market will become no less saturated than in America. We are also taking this into account and therefore we are working in many directions rather than just in aviation. We are cooperating with a number of research institutes in other areas and we are paying for separate studies. All of this provides reserves for the future.

[Kotov] What about the plans and tasks for the near future?

[Markeyev] As for consumer goods, to get away from the large number of items that we are now producing, to narrow the products list. We want to specialize in complex appliances. We are already prepared to make washing machines, mixers, and coffee grinders but it all comes down to a lack of electric motors. For there is not a single plant from Krasnoyarsk to the Far East that is producing them. For the time being, we are getting motors anywhere and however we can. We recently bought a batch of 30,000 in Japan but this is no solution. Conditions are absolutely unfavorable for us—there is no recovery of foreign exchange. We put an imported motor in our vacuum cleaner and sell it for rubles. To sell it abroad for a pittance does not solve the problem either. There it will cost \$25 or at most \$30, whereas the cost of the motor is almost \$16.

[Kotov] But then why do you intend to move away from an extensive products list?

[Markeyev] The fact is that most of these products are inexpensive and metal-intensive. And you know what the situation is with supplies at this time. It is practically senseless to buy materials in the market. Let us take the fabric that we used to sew protective covers for motor vehicles. It cost R15-30 per meter, whereas in the markets they are now selling the same thing for R100-150. That is, the covers are like gold and there is simply no more reason to produce them from market fabric. And so it is with all materials. We will retain some products like those kerosene stoves, for example, for which even KOMSOMOLSKAYA PRAVDA criticized us. They said: such a large and well-equipped plant and it is engaged in all kinds of nonsense. This is so and we would be pleased to remove some things from the conveyor that are not very advantageous for us. But along come the earthquakes in Tashkent and Armenia and we immediately get orders for hundreds of thousands of kerosene stoves. And who besides us can make them? And so, no matter what, we intend to hold onto to a number of products but I repeat that we face continual shortages. As for the fulfilling of the plan for next year, as of today not a single position has been provided with resources.

[Kotov] You do not work at all with the markets?

[Markeyev] Why, we have a number of agreements with brokering firms and we want to sell output that we have already mastered, for which we have begun to experience marketing difficulties. An example is dishwashers. There was a whole series of decisions and decrees of the Council of Ministers, the Ministry of Trade, and the Central Committee. In short, they obligated us to develop our capacities and that is what we did. We issue 1,500 units a year. And then the Ministry of Trade said: we do not know anything, do what you want. And that is what we have been doing for three years now.

[Kotov] What about foreign economic activities? Possibly there are greater possibilities here?

[Markeyev] We receive offers for cooperation almost every day. We are negotiating with firms in China, Germany, and other countries but there are complications here. We are hindered by our own laws and the lack of conformity between Russian and Union laws. This is problem number one. In addition, it is very difficult for such a gigantic enterprise as ours to adapt quickly, which is precisely what is required in the case of cooperation with foreign firms. We are being held up by material-technical supply and the lack of available capacities.

[Kotov] But you were able to increase the output of consumer goods to the level of R40 million....

[Markeyev] Volumes do not by themselves indicate anything. When a defense enterprise using the same machine tools and the same technologies begins to produce consumer goods instead of military output, this requires a doubling of the number of workers. For as a rule, we have special or universal machine tools, whereas a pot requires a very simple flow line. What is happening here with the production of civilian goods cannot with assurance be called competent and economically justifiable. We are presently using the same machine tools and with the hands of the same highly skilled workers we are producing military aircraft and kerosene stoves. You must agree that this is not very intelligent.

[Kotov] I agree, but let us imagine the following picture: they take away your military orders tomorrow and there is no time for reorganization. Will you survive?

[Markeyev] It is not a matter of whether the output is military or civilian but of whether or not it is profitable. Formerly that was of no importance whatsoever, for military production is not always profitable. One can also lose big in the production of tanks and missiles. Provided, of course, that there is a real market and not what we have today. In general, and this is my profound conviction, conversion should have been approached from another direction. First prepare a base and then shift to a different, peaceful output. And take hundreds and thousands of people who are left practically without the means of subsistence, who worked at defense enterprises, and who were all dismissed at once! What is the guilt of people who did what they were told for years, often working overtime? They, as no one else, turned out to be socially unprotected.

'Alfa' Conversion Complicated

92UN0377F Riga DIENA in Russian 5 Oct 91 p 1

[Report by Valdis Freidenfelds: "The Fate of 'Alpha' Will Be Decided Behind Closed Doors"]

[Text] Riga, 4 October—At the meeting of the government on Thursday, the ministers were not able to decide whether to convert Alpha into a state enterprise or to reregister it in the Latvian Republic Register of Enterprises. The decision will be reached in the nearest future at a meeting between Latvian Republic Council of Ministers Chairman I. Godmanis and Yu. Osokin, president

of the joint-stock society, and U. Ziemelis, director of the Department on Property Conversion of the Latvian Republic Council of Ministers. So far, the government has decided that the 49 percent of stock that had been the property of the USSR is to be treated as the property of the Latvian Republic. Alpha Joint-Stock Society President Yu. Osokin told DIENA that he is satisfied with this resolution of the issue.

U. Ziemelis noted that the conversion of a joint-stock society into a state-owned one is a way of getting rid of the enterprise's current leadership. Yu. Osokin agreed with him and asked to discuss this issue one-on-one with the prime minister. He took a stand against the liquidation of the joint-stock society, stating that for the sake of it he is prepared to resign his job. The majority of ministers supported the idea of converting the joint-stock society into a state enterprise and then, in the shortest possible time, reorganizing Alpha into a joint-stock society. The Latvian Republic acting minister of industry did ask, however, that this issue be discussed at a closed meeting. In this way, all problems of property relations with the USSR—purchase of stock, fulfillment of state orders, change in the leadership—would have been resolved at once, enabling Alpha to work also in the interests of the republic's enterprises.

The main point of contention during the discussion on this issue was the fact that Alpha was registered in the Latvian Republic Register of Enterprises in February of this year, although not without certain objections on the part of the chairman of the Latvian Republic Council of Ministers, Arnis Kalnins, who gave permission for this registration. The registration certificate says: "The term of activities of the enterprise runs until property relations between the USSR and the Latvian Republic are settled and an international agreement between them is signed." In the opinion of I. Bisers, first deputy chairman of the Latvian Republic Council of Ministers, if litigation starts, its results will be unpredictable. I. Godmanis emphasized that in any case the refund of employees' personal investment is guaranteed, and any claims on the part of the USSR ministries will be rejected. The issue on the possibility of attracting other state resources for the creation of a holding company should be decided separately. It is also necessary to look for an opportunity to join the work of companies in other countries.

The Alpha association is the largest producer of semi-conductors in Latvia; a large part of its output is used for military and space purposes.

Development of USSR Missile, Space Industry

OW1111065691 Moscow Central Television First Program and Orbita Networks in Russian 0445 GMT 24 Oct 91

[Documentary film: "Weapons of Victory, or Conversion in Action," from "The Victors" program, presented by M. Kuznetsova and V. Tkachenko]

[Text] In the summer of 1944, the young designer Vladimir Nikolayevich Chelomey, employed in the Narkomat [Peoples' Commissariat] for the Aviation Industry, was charged to head a new Defense Design Bureau. The advancement of the victory in the Great Patriotic War demanded the creation of ever more powerful weapons. [video shows file footage of aircraft construction, a still of Chelomey, and what appears to be a model of a flying bomb]

The task of the KB [Design Bureau] was to counter the German V-1 with the home industry's flying bomb. The creation of the new weapon was to be based on the pulsejet, on which Chelomey began working while he was still a student. In a fantastically short period of time, by the beginning of 1945, dozens of air- and ground-launched winged bombs, even more effective than the enemy's, were ready for use at the front. [video shows file footage of workers in a laboratory testing components, launching the flying bomb from an aircraft, and a tank-borne launcher]

In the post-war years, before the appearance of ballistic missiles, the new weapon turned out to be the only rocket defense system. The Design Bureau, which was the only bureau in the country building pilotless flying devices, continued to develop even more improved aircraft and bombs.

But Chelomey's work was unexpectedly interrupted. In February 1953, the promising Design Bureau was shut down. [video shows a still of Chelomey in a group, a montage showing Stalin, Lenin, Molotov, Beria, and other leaders, then cuts to show Khrushchev visiting a test site]

After the death of Stalin, the country's new leadership headed by Khrushchev gave its support to Chelomey after visiting the test site and acquainting itself with the latest examples of rocket technology. A year and a half after its closure, his Design Bureau renewed its' work. [video shows still of an old factory dissolving into shots of the present day complex]

True, they had to begin almost from scratch on the site of a small, old plant, but, in a short time, a huge, modern enterprise for the development of rocket equipment was created here. Today, the Mashinostroyeniye Scientific and Technical Association has become one of the largest missile building companies in the world. [video cuts to show an architectural model of a plant complex, then cuts to show G.A. Yefremov, designer and general director of the Mashinostroyeniye, speaking]

[Begin Yefremov recording] We belong to those organizations in the defense complex that it is now fashionable to call monsters. The military industrial complex is a monster; a major defense organization is a monster. So, in this broadcast we wanted to try to show our methods, to show who we are, what we do, and whether we are monsters or, in fact, a modern organization capable of pushing into the future, as well as to show our potential to take part in the world economy.

Academician and general designer Chelomey was always distinguished by the fact that he solved problems in completely unusual and nontraditional ways involving a great number of specialists. Problems needed to be solved in systematic ways, always beginning with an analysis of the problem itself, including the competitiveness and viability of the equipment being created, through all the stages of creative agony from development, testing, and operation to the end of its useful life. All this was the approach characteristic of our defense organization. [end recording] [video cuts to show a model missile with folding wings being loaded into a canister, a model of a submarine with missiles, then cuts to show a submarine equipped with three pairs of missile tubes raised about 30 degrees and missile launches from a submarine and a surface ship]

The systematic approach in the solution of design problems was characteristic of Chelomey's collective. For example, the unfolding of the missiles' wings in flight turned out to be a clever technical idea defining a whole trend in world missile construction. The fundamentally new design of the missiles permitted a several-fold increase in the number of missiles that could be loaded onto submarines and ships. This allowed accurate and powerful salvos to be delivered on enemy bases and ships from a great distance. [video cuts to show a missile on a stand, an underwater launch of a missile]

The second generation of cruise missiles, equipped with onboard radar, could be aimed at targets out of the line-of-sight, far beyond the horizon. They could be launched from underwater, which considerably increased the invulnerability of the missile carrier.

The combination of the unique possibilities of the new cruise missiles turned surface and underwater missile carriers into the fundamental strike power of the Soviet Navy. This qualitative development is assessed by leading military specialists as the most important national achievement. [video shows missile launch, then cuts to show interview with Yefremov]

[Begin Yefremov recording] If we speak in general terms about the technical programs carried out by our NPO [scientific production association] Mashinostroyeniye, it was primarily a rearmament of the fatherland's Navy, the so-called rocketization, which was carried out since the fifties and consisted of introducing operational and operational-tactical cruise missiles in the Navy. This domestic development was different from foreign development and was achieved at 25 times less cost.

The most important program was the one of attaining strategic parity in the category of land-based strategic missiles. Here, the contribution of NPO Mashinostroyeniye headed by Vladimir Nikolayevich Chelomey, was most decisive. [end recording] [video shows what appears to be a ballistic missile being worked on in a hangar, a stock of missile parts, a cut-away model of a missile in a container being inserted into a silo]

To achieve strategic parity to counter the United States' unveiling new solid fuel missiles, it was necessary to quickly develop missiles which do not require prolonged preflight preparation. In the briefest of periods, using the accumulated experience in the creation of containerized cruise missiles, an ampulized intercontinental liquid fuel missile with a high degree of combat readiness was developed. These efforts are now bringing tangible results. [video shows a missile launch from what appears to be an underground silo]

As Academician Arbatov wrote in the mid-eighties: It was the achievement of strategic parity, specifically, that forced the Americans to the conference table. [video shows Yefremov speaking]

[Begin Yefremov recording] One of the most notable and complicated programs implemented was the creation of our first manned space stations, and upon this base, the heavy universal platforms and automatic platforms for receiving a great wealth of information from space about the earth. [end recording] [video cuts to show a graphic representation of a satellite scanning the earth from orbit, three rockets on display, then cuts to show a rocket being transported to and erected on the launch pad, and launched]

The creation of the Polet satellite, capable of maneuvering between orbits, was a significant task which revealed the space orientation of the Chelomey Design Bureau. After the initial space launches, the problem that faced the scientists was the creation of new powerful rockets for the practical attainment of space. The Proton launch vehicle, developed by the Chelomey Bureau, had a concentrated thrust of 10 million horsepower, three times greater than the rockets that hoisted the first cosmonauts. It was capable of lifting various heavy satellites and space apparatuses into orbit. As the creation of the R-7 rocket can be considered the peak achievement of Korolev's work, Chelomey's crowning moment came with the launch of the Proton. [video shows a Proton rocket in a hangar, a rocket being wheeled out, night launch]

To this day, the Proton forms the basis of Soviet space transportation. The orbiting stations Salyut, Mir, Almaz, the Kvant module, heavy transport ships, geostationary satellites, the interplanetary stations of the Vega, Venus, Phobos series, and the navigational satellites, all were thrust into stellar paths by Protons. But the first big step in the practical mastering of space was made in November 1965, when the new launch vehicle carried a scientific research station, also called Proton, into orbit for the study of space particles. The Proton rocket also carried into space the first apparatus to begin studying the moon's surface. [video shows graphics of separation of components in space, night launch, graphic of a vehicle landing on the moon, a robot moon vehicle, models of various space vehicles]

Far ahead of its time, the Proton launch vehicle opened ever newer possibilities. The Design Bureau began developing spacecraft and spaceship projects for flights around the moon, to Mars, and to other planets. The designers started creating the first space house—the orbital station Salyut. The successful launches of the Salyut-3 and Salyut-5 stations confirmed the huge possibilities of long functioning, inhabited space laboratories. [video shows interior of space capsule, cosmonauts boarding, launch]

The lead of the Design Collective headed by Chelomey in creating a powerful launch vehicle and orbiting stations was never in doubt. It seemed that the way was open for new space developments, but the main difficulties, as it happened, were not in space but on the ground. In 1978, all work on the space program at the enterprise was halted, supposedly because of the need to increase efforts in other directions. Even the latest Almaz station, which in many ways surpassed the American space program, fell under this imposition. [video cuts to show I.Yu. Postnikov, leading designer of the NPO Mashinostroyeniye]

[Begin Postnikov recording] The history of the creation of the Almaz complex is quite dramatic. We launched the first apparatus in 1987, and few are aware that we could have launched it significantly earlier. The first model was prepared for launch in the summer of 1981, but the launch never took place. Three days before the space apparatus was coupled to the Proton launch vehicle, the preparation of the space apparatus at the test site was discontinued by order of Politburo member Ustinov. The subject was closed. This came about because of adverse relations between Ustinov and our former general designer Vladimir Nikolayevich Chelomey.

There is one interesting point. The Almaz space apparatus was at the test site for six years and nothing happened to it. We were fortunate that pyrotechnic equipment destruct charges were installed in the apparatus, and everyone knew about it. Everyone knew that entry to Almaz was forbidden, because something unforeseen could happen. This helped us a lot. This is why when we arrived in January 1985—this was the first expedition after a break of several years—Almaz stood in the very same place, and in the same condition as when we left it in 1981.

The current program—that is, the flight of the Almaz-1 space apparatus, and, unfortunately, it is our last space apparatus—may cease with this flight. [end recording] [video shows graphics of rocket staging and releasing a satellite]

The launch of Almaz coincided with the period during which space programs were being curtailed. The station is now supplying the most valuable information in the spheres of hydrology, cartography, geology, agriculture, and environmental protection. However, the Almaz development program is being poorly financed, even though every ruble invested in this program could return up to five dollars profit. [video cuts to show an interview

with O.N. Meyer, laboratory chief of the VNITs "Agroresursy" (All-Union Scientific Research Center of Agricultural Resources)]

[Begin Meyer recording] To economize on the next Almaz launch would be tantamount to cost cutting by a greedy man, who will have to pay for the same thing several times later. [end recording] [video cuts to show an interview with G.I. Vasilenko, deputy director of VNITs "Agroresursy"]

[Begin Vasilenko recording] The Almaz satellites are satellites which use apparatuses built with the most up-to-date technology, which permits receipt of radar images of near-photographic quality.

On the imagery supplied by this satellite one can quite clearly see those areas which have sufficient moisture and those that do not have sufficient moisture, which is extremely important to agriculture. Generally, satellite technology, which is called remote sounding of the Earth's surface, is very widely used in the world, including our country, to forecast harvests and to monitor the earth. [video shows a printer producing a map depicting colored areas]

This map, when used for such forecasts becomes completely priceless, and I cannot assess the potential economic advantages from the use of space information, because, in every actual instance, it could be manifold. For example, in the event of forecasting [passage indistinct] this may determine the strategic policy of the state, for example, in encouraging the cultivation of grain crops, in anticipating exports of grain crops, in anticipating imports, and so on. We have not put this on a serious commercial basis yet, that is the first thing, and the second, perhaps it is because of our poverty. When all of this is going to cost dollars, maybe then we will come to our senses as to what is cheaper and what is dearer. [end recording] [video shows a drawing demonstrating the function of earth probes, then cuts to show an interview with P.A. Shirokov, chief of the Data Processing Center of the NPO Mashinostroyeniye]

[Begin Shirokov recording] We are also carrying out commercial imaging with the aid of the Almaz station. The information is fairly expensive. The main consumers of our information are scientific establishments and organizations of a number of Western countries, specifically, the United States and Canada. For example, an image such as this [passage indistinct] [end recording] [video shows a number of people around a table studying a mosaic of imagery]

[passage indistinct] Almaz station, is difficult to overestimate, particularly when speaking about rescue expeditions. Over 70 percent of the Earth's surface is obscured from observation from space by cloud. However, Almaz can see through cloud. As an example of the use of the information from the Almaz station [passage indistinct] around the scientific expeditionary vessel Mikhail

Somov trapped in the Antarctic ice. [video cuts to show Yefremov speaking, with a space craft bearing the name, Almaz, NPO Mashinostroyeniya in the background]

[Begin Yefremov recording] The development of such complicated equipment allows us to create and use the wealthiest reserve of new technology which is capable of opening up entirely new fields—earthbound ones, completely earthbound ones—and all kinds of manufacturing processes. Here we have [passage indistinct] [end recording] [video shows interview with F.K. Kadyrov, leading scientific worker of the NPO Mashinostroyeniye]

[Begin Kadyrov recording] [passage indistinct] Almaz station, flew in its manned version and was called Salyut. It became necessary to change the air. The air exchange method aboard the station was developed by the NPO Mashinostroyeniye in accordance with an advanced method—a gas piston. It consists of supplying [passage indistinct] from air tanks displaced the contaminated gas like a piston; that is, in a single exchange of the atmosphere the complete expulsion of the contaminated air from the station's compartment was achieved. This method is four to five times more effective when compared with the traditional purging method. It can be applied not only in space, but also in various technologies on earth—for instance, in ventilating tunnels, mine shafts, and residential and industrial quarters. [video shows a space vehicle in a hangar, workman working on the interior, a large machine with a logo and "DVU-30" printed on its panels]

In collaboration with the NPO Khimvolokno, we have developed experimental and industrial installations to generate nitrogen. [end recording] [video cuts to an interview with Ye.V. Khanin, department head of the NPO Mashinostroyeniye]

[Begin Khanin recording] In my hand I am holding a miniature electric power station, and essentially it differs from the one on-board only by its size. [video shows an array of solar cells of varying sizes] It assures the operation of a receiver such as (Vef), or (Okean). This other larger bank will operate portable television receivers. Even larger banks, like this one for example, will provide a supply of electric power to a small residence. Our enterprise, in cooperation with other organizations, has developed methods to lower the cost of such power installations by two to three times, and this will make them affordable to all. [end recording] [video cuts to show an interview with I.S. Yepifanovskiy, department head of the NPO Mashinostroyeniye]

[Begin Yepifanovskiy recording] We have developed an electric heating element made from a composite ceramic material which can be used at temperatures of up to 1,650 degrees Celsius in a variety of environments. The use of these ceramics allows a significant reduction in the cost of electric heaters under development, approximately [words indistinct] times. [passage indistinct] because the heaters can be made in various shapes—technology permits this—with low inertial mass, I will

emphasize once more, and with a set distribution of temperature around the heating area, a savings of 15-20 percent in electrical energy can be achieved. If we speak about popular appliances, this would engender significant savings. [end recording] [video cuts to show Yefremov speaking]

[Begin Yefremov recording] Currently, a broad range of consumer goods, civilian goods, which have no connection with space or rocket technology, has been developed and brought together within the association, and their output commenced [passage indistinct] [end recording] [video shows a range of pleasure boats being manufactured]

[passage indistinct] these yachts made from plastic, which are being produced at the NPO Mashinostroyeniye, can be acquired by anyone that wants one, and at a price considerably lower than the price of a yacht of this class abroad. Four passengers can be accommodated in its comfortable cabin. Also, an outboard motor will allow a long trip to be made during vacation. [video cuts to show the manufacture of bread rolls]

This line producing bread rolls was developed as part of the branch's conversion program. Of course, such machines are far from the basic theme of the association. Experience in assimilating a range of design projects unique to defense industries played a major role in this creation. [video shows modern bakery machinery, then cuts to show an interview with Ye.D. Kamen, deputy general designer and deputy general director of the NPO Mashinostroyeniye]

[Begin Kamen recording] The NPO Mashinostroyeniye, jointly with a number of its associated organizations and enterprises, which previously were involved with processing, has created an association for the reconstruction and development of oil and fat enterprises. We understand that this program cannot be realized without the participation of foreign partners, and that is why, currently, leading Western companies are working with us. Currently, we are working very closely with West German companies such as Krupp, and Westphalia Separator. [end recording] [video cuts to show various machines operating, assembly and testing of large components]

Great prospects for collaborating with foreign partners are being facilitated by combining a powerful testbed base with unique equipment, instruments and installations, and accumulated scientific potential of developers, which permits the development of new areas in civilian production and the creation of highly reliable and competitive examples of consumer goods. [video shows an interview with N.P. Balabukha, chief of the Scientific Research Center of the NPO Mashinostroyeniye, then cuts to show a parabolic satellite television antenna, and a testing facility]

[Begin Balabukha recording] We are in the hall of the unique (kalmator) test stand. Next to me is a satellite

television antenna which was created at the NPO Mashinostroyeniye, after work on the Almaz space platform. In Moscow you can receive up to 50 programs from various television companies of the world using this antenna. Working here, we are achieving world quality in the production of satellite antennas. [end recording] [video shows an interview with V.S. Bazanov, leading engineer of the NPO Mashinostroyeniye, then cuts to show a model satellite with foil sails]

[Begin Bazanov recording] If we extend our hands to the sun, we feel warmth. But it is not only warmth, it is also pressure. This very small, weak pressure is just 1 milligram per square meter. But imagine now if we take the thinnest of film coated with a layer of reflecting metal, for example, aluminum, and unfurl a solar sail made from such a film in space. It would be possible to collect sufficient energy to move a space platform. The creative collective of scientists and specialists at the Academy of Sciences and NPO Mashinostroyeniye took part in developing designs for such a space platform. One ruble invested in this project will return, at the minimum, one dollar. [end recording] [video shows correspondent Sergey Yurakov interviewing Yefremov]

[Begin recording] [Yurakov] What, in your view, are the problems with the conversion currently being conducted?

[Yefremov] It is the problem of frozen prices and wages. Our current wage under a state order is set at an average of 280-300 rubles. That is one of the problems. A state order is unattractive and unprofitable. Everyone tries to get out of it, particularly out of a defense order. These are issues which are now being resolved by market methods, by a normal healthy economy. [video cuts to show Yefremov speaking in front of an NPO Mashinostroyeniye organization chart]

The entry of the association into a market economy has demanded the creation and shaping of new organizational and administrative structures, essentially new kinds of enterprises, including smaller enterprises, technical centers, joint enterprises currently being formed, and associations of which we are founders. [end recording] [video shows an interview with A.N. Lysenko, director of the "NETER" brokerage office]

[Begin Lysenko recording] What does the "NETER" brokerage office contribute? It can buy material resources on foreign as well as domestic markets, through the VPK [Military Industrial Complex] and the Russian Stock Exchange. [end recording] [video shows a caption giving the brokerage office's business address, telephone and fax numbers, then cuts to show an interview with V.I. Martynov, Deputy Director of "Almaz" foreign trade company of NPO Mashinostroyeniye]

[Begin Martynov recording] In my hand I am holding a photograph. This is not an ordinary photograph. This is a computer generated radar image of the surface of the earth made to order for an American company. Its cost is \$2,000, the same as the cost of a personal computer or five videocassette recorders for you. The people who are creating Almaz-1 and these technologies are currently

working on creating Almaz-2 station. This will be a new type of station oriented toward the consumer. Almaz-2 is a station which does not waste your money. Almaz-2 is a station that earns money for you. [end recording] [video shows caption providing an address for further information, then cuts to show views of the Mashinostroyeniye plant]

Using the NPO Mashinostroyeniye as an example, you have seen what possibilities defense enterprises have to satisfy the needs of the country and the population. We await your responses, and we promise to return to our story on this association in six months time.

Defense Concern Seeks Western Backing for Joint-Stock Company

924A0268A Moscow *DELOVOY MIR* in Russian
2 Nov 91 p 8

[Interview with Anatoliy Turchak, general director of the "Leninets" Concern, by Yelena Druzhinina under "Conversion" rubric: "The Defense Industry Is Revealing Its Cards"]

[Text] The "Leninets" concern, one of the largest representatives of the military-industrial complex, turned to EC headquarters through the well-known international auditing company Coopers and Laybrand with the proposal that it finance the concern as a joint-stock company and give it the status of a joint-stock holding company meeting the parameters placed on analogous companies in the West. In the opinion of Anatoliy Turchak, general director of the concern, this may establish a very useful precedent for all the industrial enterprises of Russia that face conversion into joint-stock companies.

[Druzhinina] Anatoliy Aleksandrovich, this is very peculiar, asking a Western company to carry out joint-stock conversion and with EC money. In making such a proposal, you are apparently counting on success and will benefit. But what is the sense in having the European Community pay for this action?

[Turchak] Truly wise and far-sighted businessmen will understand the prestige of this measure at once. I think that the cost of the joint-stock conversion will not amount to an astronomical sum. After all, Coopers and Laybrand is familiar with this work.

The main thing is that a very curious precedent arises. For the first time, a Soviet enterprise of the military-industrial complex that was formerly absolutely secret is putting its cards on the table. After the air exhibition in Le Bourget and the "Conversion 91" exhibition in Bologna, where for the first time we showed much of our output, interest in "Leninets" increased uncommonly. After all, we do indeed produce radioelectronic equipment of world quality. By the way, all of the equipment on the "Ruslan" and the MiG-31 fighter was developed

and made at "Leninets." Naturally true commercial and state secrets will remain such.

In addition, in carrying out an international auditing evaluation of the Soviet enterprise, it will become clear what its real value is for Western partners. In this sense, our concern is rather significant, because it includes advanced technologies and also produces children's toys. That is, the spectrum of output is most diverse.

In my view, there are also other attractive aspects of our proposal. After having studied the concern and in carrying out its joint-stock conversion at the world level, the West obtains a partner that talks with it as an equal. And this is the guarantee of success in future cooperation. In my opinion, a deal is mutually advantageous and we are prepared to be pioneers in the joint-stock conversion of large-scale enterprises. We could subsequently extend our experience to other firms as well.

[Druzhinina] As far as I know, you have already begun to cooperate with Coopers and Laybrand and after evaluating one of the concern's plants they recommended that everything there be turned over to scrap metal....

[Turchak] The most interesting thing is that they have reexamined their initial "destructive" decision. And they made recommendations on how to make this same "Elektrobribor" plant profitable. Thus, the Coopers and Laybrand company already has an idea of the "Leninets" concern and in principle agrees to deal with its joint-stock conversion. Moreover, we can already see the contours of the future concern. We hope that the result will be the formation of a two-level management system: a holding company at the top level and separate independently functioning subdivisions at the lower level. Working conditions and remuneration of labor at each enterprise may change depending upon specific conditions. These firms will not depend upon the results or failures of neighboring structures functioning in a parallel manner.

The functions of the holding company will be reduced to a minimum. Nevertheless, they will cover such spheres of action as strategy, international financing, supply and provision of output from other countries, and the acquisition and sale of companies included in the holding company. Many of the most efficiently operating firms in the West work precisely in such a way that the management of production is given to independent companies, whereas the holding company retains only the functions of a strategic nature.

[Druzhinina] One gets the idea that your concern is carrying out conversion quite boldly and successfully. What does your version of a transition to exceptionally peaceful output involve?

[Turchak] At the present time, about 35 percent of our output goes to the military department. Consumer goods make up the rest. We intend to reduce military orders to 25 percent and stop there. Of course such a change in structure cannot be painless. The reduction of military

orders leads to a freeing of jobs. To avoid dismissal, the people have to go over to other forms of production that are not yet as profitable as military production.

But this problem is not the most difficult one. The stumbling block is the psychology of the workers. For today all must understand that they cannot work as they are accustomed. Those who are used simply to passing their time at work are not needed anywhere. I understand that entire generations have been taught a cool and indifferent attitude toward labor and this cannot be corrected by some order. But precisely here is the psychological basis of the conflicts that today are shaking our enterprise and I know others as well. People think that the management is unfair and is demanding too much.

[Druzhinina] What kind of economic indicators does the concern have? Is there profit?

[Turchak] It is useless to talk about profit now. Not because there is none but because it is unknown how to count it in the continually changing prices and galloping inflation. A convertible ruble is very much needed. Only then will it make sense to speak of profit in monetary terms. But for the time being, whatever we produce is bought immediately. And there is also a huge demand for output under barter trade. It is self-evident that this system is now the most effective for the obtaining of raw materials and completing products. Nevertheless we are developing ties with many markets.

[Druzhinina] I witnessed your negotiations with the Italian managers of the SMA company. It seems to me that they themselves took the initiative and are very interested in cooperation.

[Turchak] Many firms are showing an interest in us and we welcome all contacts with Western specialists. This will raise the level of the concern's output. The concern has established joint ventures. The largest is with the Gillete firm for the production of razor blades and shaving cartridges and also for the production of absorption refrigerators without using freon. We organized a joint venture with the Italian firm Fata, in which the Americans are also participating.

Our plans include the formation of our own airline. As fixed capital, the concern is offering a military airport, aircraft, and all of the necessary ground services at Pushkin. We have an agreement with the military in this regard. In addition, there is still another airport in Hungary that was built by the group of Soviet forces that was stationed there. It will also be part of the airline. Our plans include the establishment first of a freight and then a passenger air bridge from Southeast Asia to Western Europe through the territory of the Union.

For at the present time, airliners serving this route have to fly around our country. Considerable investments will be required to realize the project. It is necessary to build new airports and to modernize those secondary airports now in existence. This is why we need a solid foreign partner.

[Boxed material]

**Scientific-Production and Foreign Economic Concern
"Leninets" in St. Petersburg**

- number of workers: 50,000
- gross turnover: R1 billion
- volume of export deliveries: R20 million

The concern includes:

- 16 plants
- 2 joint-stock companies
- 10 research organizations
- 50 small enterprises
- a bank
- broker's offices
- an agro-industrial complex
- an educational center
- hotels
- recreation centers throughout the world.

Produced output:

- weather navigation locators for civilian and military aircraft
- stereo radio-tape recorders, vehicle radios, portable radios, players
- domestic absorption refrigerators
- vacuum cleaners
- kitchen machines (coffee grinders, coffee brewers, mixers)
- toys and souvenirs
- razor blades from stainless and carbon steel, cartridges and cartridge systems for shaving
- medical equipment
- dosimeters

"Leninets" is prepared to collaborate with foreign partners on the basis of mutually advantageous cooperation in different forms:

- joint ventures
- purchase of technologies on a compensatory basis
- industrial cooperation
- joint scientific and research studies
- professional training of personnel
- organization of recreation.

Latest Achievements of the "Leninets" Concern**"Nit" Radar System.**

Monitors the state of forest lands and reservoirs, surveys the ice situation in the polar basin of the Arctic, and determines origins of fires. With its help, it is possible to carry on the cartographic photographing and search for objects in distress.

On-board digital computer Ts-176.

Set up on board an aircraft, it is used to control the work of the radar station, sonar, and other systems, instruments, and components.

On-board weather radar "Kontur."

Is intended for use on aircraft and helicopters. Provides for the timely detection of weather formations dangerous for flight and performs navigation orientation using the characteristic features of surface objects.

On-board radar Yur-40.

Is installed on helicopters of the search service and is intended for use in searching for objects. Ensures the performance of meteorological work under the most difficult weather conditions and in different types of terrain, including in the mountains.

On-board radar.

Controls landings when there is no visibility on the runway.

Rheogastrograph.

An apparatus intended for the diagnosis of stomach illnesses. With its help, the diagnosis can be made quickly and without any particular inconvenience for the patient.

Problems of Destruction of Chemical Weapons

92UM0114A Moscow *RABOCHAYA TRIBUNA*
in Russian 31 Oct 91 p 3

[Interview with Chief of the Chemical Troops Directorate, Doctor of Technical Sciences, Corresponding Member of the Russian Academy of Natural Sciences, Major-General Igor Borisovich Yevstafyev by Vladimir Shchedrin: "Yellow Smoke of the Homeland: Will We Rid Ourselves of It in the New Century?"]

[Text] According to current calculations, the state program for destruction of chemical weapons in the USSR will cost 10 billion rubles. Of course, it is not only an issue of money. We need to create an entire series of industrial facilities and train thousands of skilled specialists. We need laws, procedures, and time. The mountains of chemical projectiles and bombs have been accumulated for nearly a century and they have not only been accumulated in our country. We will permit the experts to speak. Our interlocutor is Chief of the Chemical Troops Directorate, Doctor of Technical Sciences, Corresponding Member of the Russian Academy of Natural Sciences, Major-General Igor Yevstafyev.

[Yevstafyev] We never were monopolists in chemical weapons. But here is the paradox: as of today, three states—the USSR, United States, and Iraq—have officially announced that they have reserves of these weapons and facilities for their production. It would be too naive to draw a line under this list. According to various assessments, another nearly 20 states are potential possessors of military toxic substances. Among them, we can legitimately include those countries which have production facilities or which manifest interest in the acquisition of semifinished products or technologies for chemical weapons production. And this is still not all of them. "Old" Second World War-vintage chemical weapons have remained on the territory of a number of countries. This is also a reality.

[Shchedrin] Today, who is the "champion" in reserves of the "Poison Death"?

[Yevstafyev] The Soviet Union has 40,000 tons. The United States' reserves total 30,000 tons. Iraq has less, although we still do not have a precise figure.

[Shchedrin] These reserves in our country increase annually, if not daily...

[Yevstafyev] Fortunately, no. First of all, a Soviet-American agreement exists that was signed by the presidents of both countries on June 1, 1990. In accordance with it, the parties have assumed the obligation to cease production of chemical weapons. We had actually already done this in 1987. Since that time, not one projectile or bomb containing the corresponding chemical charge has been produced. The Americans had not produced chemical weapons from 1969 through 1987. Since 1987, binary weapons have been produced in the United States but only until the previously mentioned

agreement was signed. So, the American and Soviet arsenals are not being increased.

[Shchedrin] Igor Borisovich, your assurances are sufficient for me personally. But it is possible that incredulous readers will be found. In this regard, let us talk about monitoring and the exchange of data in this sphere. How effectively does this system operate?

[Yevstafyev] The problem of monitoring can be tentatively divided into two aspects: national and international. International monitoring is a mandatory block of any interstate agreement. We have become convinced in practice that we can insure monitoring—naturally, under the condition of good will by the partners and high training of national specialists. However, international monitoring will not provide 100 percent effectiveness. We need national monitoring, that is, states' strict execution of their obligations. On the whole, the primary portion of the multilateral convention, which has been worked on for 20 years, has been devoted to the issues of monitoring. Yes, the time period is more than significant. But obviously only right now has the situation developed when participants in the negotiating process have "matured" in order to conclude this colossal work. The presidents of the USSR and United States have designated compromise versions on the majority of unresolved issues and they have also expressed the need for the most rapid conclusion of the talks. I think that the recent war in the Middle East, which demonstrated a serious threat as a result of the possible utilization of this type of weapon, served as the latest impulse.

[Shchedrin] Igor Borisovich, at the beginning of the conversation, we were talking about a nearly astronomical figure—R10 billion—needed to destroy all reserves of toxic substances in our country. And, in fact, how should we destroy chemical projectiles and bombs?

[Yevstafyev] Previously, a total of two methods existed: dump them in the oceans or incinerate them in the open air. The latter method is not only unacceptable but it is also banned today. The draft convention also prohibits dumping them in the ocean. Although, it seems to me as a scientist that the method of dumping them in the oceans appears to be ecologically safe.

[Shchedrin] How do we need to understand this?

[Yevstafyev] We need to do everything rationally. The burial of radioactive wastes by dumping them in the ocean continues until today and is very widely utilized throughout the world. We have nevertheless once and for all rejected the idea of dumping chemical weapons into the ocean. The method of destroying them using a nuclear detonation also exists. At one time, the American side was also examining this possibility. We are conducting research in this area but the question is based on the nuclear explosion itself: where do we conduct it? In the United States, the primary method is direct incineration of toxic substances with total screening of all combustion components. In a more simplified manner, the technology is such: the chemical munition is

unsealed and the toxic substance is pumped out and burned in a special incinerator at high temperature with the guaranteed screening of exhaust gases. Work is being conducted on this method, for example, on Johnson Atoll in the Hawaiian Islands. Our technology is differentiated only by the presence of one additional stage. After unsealing the munition, we carry out neutralization of the toxic substance by mixing the chemical "filling" with a special degasifier. The mass that has been formed is shipped for incineration. From our point of view, this method is safer. However, at the present in our country we have practically not verified the most ecologically complex stage on an industrial scale—incineration of the reaction masses.

[Shchedrin] Today, can we frankly state: stores of munitions with toxic substances exist on the territories of which republics?

[Yevstafyev] Only on the territory of Russia.

[Shchedrin] Consequently, the primary burden of work for the destruction of chemical weapons in our country lies primarily on Russia's shoulders?

[Yevstafyev] In the current situation—absolutely. And to our great regret there are still not enough good contacts on this problem between the USSR Ministry of Defense and Russia's highest organs of power. There is total mutual understanding with the autonomous republics but at Russia's highest level—alas.... I am far from the thought that they do not want to or cannot understand us, the military experts. I think that the matter is simply the Russian Government's lack of information. But this problem is colossal in its importance and requires a prolonged period of time for its resolution.

[Shchedrin] Can you talk about the time periods today?

[Yevstafyev] According to today's assessments, work may be completed on coordinating the text of the multilateral convention at the talks in Geneva in 1992. In this case, it can be opened for signature in 1993 and it will enter into force in 1994-1995, that is, after all states have signed it whose participation in the convention is necessary. The draft stipulates that all reserves of chemical weapons must be destroyed within 10 years of the convention entering into force.

[Shchedrin] According to the time periods, does it turn out that we will also be lugging toxic substances around in the new century?

[Yevstafyev] Everything depends on us. The destruction of chemical weapons—is not a secondary task. It is no less important than nuclear disarmament. But we have really attained such impressive results in this area in such a short period of time! Why can we not also do it here?

Fate of Military Prosecutor's Office 'Not Decided'

PM0711141891 Moscow IZVESTIYA in Russian
5 Nov 91 Union Edition p 8

[Interview with USSR Deputy General Prosecutor Yanis Dzenitis by N. Burbyga; date, place not given; first paragraph is IZVESTIYA introduction: "Fate of Military Prosecutor's Office Still Not Decided"]

[Text] IZVESTIYA has already reported that the collegium of the Main Military Prosecutor's Office has been completely disbanded and its activity ended. What gave rise to this decision? What is the future fate of the Military Prosecutor's Office itself? Our interview is with USSR Deputy General Prosecutor Yanis Dzenitis, who is entrusted with directing the organs of the Military Prosecutor's Office.

"The decision to disband the collegium of the Main Military Prosecutor's Office was adopted in connection with the upcoming reform of organs of the Military Prosecutor's Office," he said. "We have formulated a concept, according to which military law-enforcement organs will be removed from the tutelage of the Ministry of Defense and will become fully independent. How is this to be done? According to our plan, the Main Military Prosecutor's Office will be transformed into the Main Administration to Supervise the Implementation of Laws in the Armed Forces under the USSR general prosecutor. The funding of military lawyers will also be transferred from the Ministry of Defense to the USSR Prosecutor's Office..."

[Burbyga] And yet it is still not clear whether the USSR Prosecutor's Office itself will "survive..."

[Dzenitis] I can say this: If the Union exists, the USSR Prosecutor's Office will also remain. The organs of the Military Prosecutor's Office must also exist as long as the Army exists. We cannot manage without them. For example, during the first nine months of this year alone the rights of more than 4,000 servicemen were reinstated following the results of general supervisory work, and more than 400 servicemen were released from unlawful arrest. At the suggestion of military prosecutors more than 26 million rubles [R] was recovered for the state budget from guilty persons. And precious metals worth R13 million were returned to the state. As regards recorded crimes, the detection rate stands at 99.9 percent for all the armed forces. What does this mean? During the period from 1947 through 1991 just 15 murders were not cleared up. This is a good indicator in work. But there is, of course, defective work as well. We believe that the investigation into cases of servicemen's deaths is being conducted unsatisfactorily today. And we will make tougher demands with regard to instituting proceedings against those officials whose fault it was that a particular person died.

Reform of Military Tribunals

92UM0134A Moscow ROSSIYSKAYA GAZETA
in Russian 7 Nov 91 p 2

[Article by Colonel of Justice Vladimir Bozrov, candidate of law and chairman of the Yekaterinburg Garrison military tribunal: "Law: Why Does Themis Need a Military Uniform?"]

[Text] I am persuaded that the proposals for reorganizing the system of military tribunals with which I am familiar and which constitute no more than a rearrangement of the furniture in the same old apartment can be termed reform only by stretching the truth.

They essentially amount to the following: Tribunals are to be withdrawn from the Armed Forces and designated military courts, their officers are to be withdrawn from the forces per se, the courts are to be financed from the state budget, but, at the same time, (!) the material and technical provision of military courts is to be entrusted to agencies of the Defense Ministry. This raises no questions, since a court cannot be a part of any department, including the Defense Ministry. It is this circumstance that necessitated the impending reform of military tribunals. But then, following this logic, we need to go further and answer this question: Why, in this event, does the court need a military uniform in the first place?

We should dismantle the system of military tribunals as such and create in garrisons courts that would be linked to oblast, kray, or republic courts. In courts of the second instance, it would be possible to set up collegiums for garrison court affairs. This structure would ensure the integrity of a unified court system in each republic as a sovereign state. And judges should not be servicemen; rather, they should be elected in the same procedure used in the regular courts.

What will this do? First, the court will become a true court, as in any civilized democratic society. Second, all the clashes with the law that are constantly to be found in their procedural activities will be eliminated.

Since some take the view that military judges should have officer rank, such judges would consequently remain servicemen subject to military regulations. Let us consider these regulations, specifically the Interior Service Regulations of the Armed Forces, which every serviceman, including tribunal judges, have to obey. Under Article 12 of those regulations, any unit sergeant—much less any officer, including a tribunal judge—is the superior of a rank and file serviceman. So imagine a court consisting of a presiding officer and sergeants serving as assessors, which is often the case, administering to a rank-and-file serviceman the very justice that the proponents of military courts are concerned about. And if a case reaches the supreme military court, there the soldier's fate will be decided by (whom did you think?) a panel of three generals. Indeed, such a court is reminiscent of the Krylov's famous fable.

I would like to call attention to issues of subordination with regard to judges of lower rank and judges of higher rank, and between them and superior military officers in general. Under the existing tribunal system, their relationship is governed by the same military regulations—that is, on the basis of the same concept of "superior" and "subordinate." The uninitiated might fail to grasp the significance of this point. The explanation is to be found in Article 10 of the aforementioned regulations: "Superiors have the right to issue orders to subordinates and must verify their execution. Subordinates are obliged to unquestioningly obey superiors."

There you have it! No more and no less. The regulations make no exceptions for military judges. Some generals who serve as judges continue to issue orders to influence the outcome of criminal cases. They're generals, and they have the power to do it.

If we leave the system centralized as it is now, the handling of personnel matters for all tribunals throughout our territory is naturally concentrated in the hands of a single agency (perhaps even the President or parliament). This leaves a loophole for protectionism. For the majority, the situation remains unchanged: "If you're posted to the North, it's going to be the extreme North, if you're posted to the East, it's the Far East." For the elect, it's no farther than "Arbat district," or abroad. Considering that tribunal judges are elected for 10 years, it's not hard to see whom this benefits and whom it does not.

Incorporating tribunals in the system of regular courts will make it possible to avoid this social injustice too, since garrison courts will be staffed on the basis of the regional principle, in most cases with local residents. Efforts to solve other personnel problems will be facilitated as well, including the problem of the "personal famine" for remote garrisons. The question of the global migration of military judges who, like actors, wander about the country in search of a better situation will be completely eliminated.

Proponents of maintaining the courts in a military uniform cite another, no less important, in their view, argument: A military judge has a better understanding of military life, something that, in their opinion, is an indispensable condition for handing down just sentences. This argument, it seems to me, also fails to stand up to criticism. If we evaluate a judge's competence not on the basis of his legal knowledge, but on the basis of his knowledge of how the defendants live, then what about people's judges? Should they also specialize in the branches of the national economy? That's one thing. Secondly, then the specialized courts that serve especially important military installations should also wear a military uniform, since they hear cases involving military construction workers. Finally, it is not out of place to mention that more than one-third of all military tribunal judges have no military education, but this does not prevent them from hearing criminal cases in a quality fashion. As for the military procuracies that

investigate these same criminal cases, there more than half of all personnel lack a military education.

I would also like to recall that the crown of the entire military tribunal system—the Military Collegium—was used as an especially repressive organ during the years of the personality cult. In this regard, it is appropriate to recall the words of V. Hugo: "When you nurse the broken wing of a kite, you become liable for its talons."

Interview With Main Motor-Vehicle Directorate Chief

92UM0160A Moscow KRASNAYA ZVEZDA in Russian 22 Nov 91 First edition p 1

[Interview with Lieutenant-General N. Zazulin, chief of the Main Motor-Vehicle Directorate of the USSR Ministry of Defense, by KRASNAYA ZVEZDA correspondent P. Altunin under the rubric "First Interview in the New Position": "All Roads Lead... to the Main Motor-Vehicle Directorate"]

[Text] By order of the USSR minister of defense, Lieutenant-General N. Zazulin is appointed chief of the Main Motor-Vehicle Directorate of the USSR Ministry of Defense.

He was born on 1 December 1934 in the village of Sebrovo in Mikhaylovskiy Rayon, Volgograd Oblast. He completed the 2nd Motor Vehicle School (with distinction) in 1957 and, after serving in the forces, the Rear Service and Transport Academy (also with distinction). He climbed the service ladder from commander of a motor-vehicle platoon to chief of the Navy's Motor-Vehicle And Armored Service. He worked in the Central Apparatus of the USSR Ministry of Defense. He has served as first deputy chief of the Main Motor-Vehicle Directorate of the USSR Ministry of Defense since 1989.

He is married and has a daughter and granddaughter.

[Altunin] To the best of my knowledge, all roads in the army and navy lead to the Main Motor-Vehicle Directorate. We do not make a move without a motor-vehicle, as they say. What are your first impressions since assuming the position?

[Zazulin] I cannot say that I have any totally new impressions. After all, I had served two years as first deputy chief. The main thing is that my responsibility has increased many times over.

With respect to the present, despite the difficult situation in the nation, the motor-vehicle service for the branches of armed forces is performing its missions. Most of our personnel are loyal to their occupation and prepared to perform any mission. Think of what extreme situations the motor-vehicle specialists have found themselves in just in the past decade: Afghanistan and Chernobyl, and the harvesting of the crops in roadless areas and inclement weather.

There are also plenty of problems, though. The most painful is the loss of people's lives in traffic accidents.

Then there is the inability to fill our orders for motor transport. The spare parts situation is even worse.

[Altunin] And how do you handle the situation?

[Zazulin] We handle it with what we have, although it is sometimes almost too much. The load on the repair enterprises has grown. We sometimes have to make certain spare parts ourselves.

[Altunin] Is it true that the vehicles return almost crippled from the virgin-land territory and other places after the harvest?

[Zazulin] Yes, they do. We incur enormous losses.

[Altunin] Is there a solution?

[Zazulin] It lies primarily in the internal redistribution of our allocations and a halt to the purchase of unnecessary, obsolete material, and in the standardization and unification of the equipment. In the conversion to market conditions we too have to defend our interests. I have in mind commercial relations. We dispatch vehicles to assist the kolkhozes and sovkhozes, for example, and we need contracts and payment. Or take the sale of equipment. We sell it at fixed prices, and then our partners resell it at market prices. I feel that the repair of equipment turned over to the civilian economy should also be handled by enterprises of the Ministry of Defense. This will give us an opportunity to earn extra money.

Previously there was the state order, there were Gosplan, Gossnab.... They took care of us. We now have to acquire the motor vehicles and equipment ourselves with the funds allocated.

We deal directly with concerns, joint-stock companies and enterprises. Today we have around 2,500 clients. The money allocated is clearly inadequate. This is what I am talking about, the fact that we are spending our own money. We are counting on the decision adopted by the USSR Ministry of Defense to convert to the contractual manning of the army for reducing the accident rate for the equipment. We feel that this will finally permit us primarily to resolve the problem of safety in transporting personnel by using experienced, professional drivers.

[Altunin] You praise your personnel. Do you mean the officers?

[Zazulin] Yes, primarily the officers. They are our mainstay. The enlisted drivers also love their work. With respect to blue- and white-collar workers of the Soviet Army—and they constitute a majority—we have had problems of late. Serious problems....

[Altunin] Could you be more specific?

[Zazulin] We are apparently not the only ones to have this problem. The collectives have been built up over the years. The majority of their members are masters, people with the golden touch. During the past year or two, however, most of them have left the work shops, bases and plants due to the low pay. There are cooperative,

leasing and joint enterprises, after all, which pay a lot more. We too are now converting to economic accountability, though, and are going to become entrepreneurs. We shall augment and solidify the collectives.

[Altunin] I know that a commercial center is being established in the Armed Forces. Does this affect you?

[Zazulin] Directly. We are even planning to enter the foreign market.

[Altunin] An intensive process of withdrawing units, including the motor-vehicle troops, from the groups of forces is underway. What kind of problems are you facing in connection with this?

[Zazulin] Once again we are being held up by a shortage of personnel for servicing the equipment and by our lack of preparedness to receive either the personnel or the equipment. We have cases in which people find themselves with nowhere to live and equipment is left out in the open. It should be said that vigorous steps are now being taken to rectify the situation.

[Altunin] And now the traditional question: What would you like to say to the readers of KRASNAYA ZVEZDA?

[Zazulin] Almost everyone has a stake in the motor-vehicle equipment and traffic safety. Let us protect and develop it together, so that it is always in a state of combat readiness and is not a cause of loss of lives.

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